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## STUDIES OF PERUVIAN BIRDS. NO. XXXVIII<sup>1</sup>

THE GENERA *OREOTRICCUS*, *TYRANNULUS*, *ACROCHORDOPUS*, *ORNITHION*,  
*LEPTOPOGON*, *MIONECTES*, *PIPMORPHA*, AND *PYROCEPHALUS*

BY JOHN T. ZIMMER

I wish to record my obligations to Mr. Rodolphe de Schauensee and Mr. James Bond of the Academy of Natural Sciences of Philadelphia for the loan of certain critical material used in the following studies.

Names of colors are capitalized when direct comparison has been made with Ridgway's "Color Standards and Color Nomenclature."

### *Oreotriccus plumbeiceps* (Lawrence)

*Pogonotriccus plumbeiceps* LAWRENCE, 1869,  
Ann. Lyc. Nat. Hist. N. Y., IX, p. 267—Bogotá,  
Colombia; U. S. Nat. Mus.; paratype in Amer.  
Mus. Nat. Hist.

Idma, 2 ♂, 1 ♀; Chaupe, 1 ♀.

Compared with a paratype and six other Colombian birds. The Idma specimens are very similar to the Colombian birds although they are very slightly duller or darker green on the back and have a little stronger tinge of pale grayish olive on the chest. The differences are too slight to give any assurance of taxonomic distinction in spite of the wide geographic hiatus in the ranges. Two birds from northern Ecuador are not appreciably different above from Colombian skins but are deeper yellow on the belly and more heavily shaded on the chest.

The Chaupe specimen, unfortunately not fully adult, differs from both Colombian and south-Peruvian series by much brighter green back (near Warbler Green instead of Serpentine Green) and slightly paler gray cap, although in other respects it agrees with the Colombian specimens. It is very

nearly adult, in full (not molting) plumage, but with the tail of immature texture and noticeably tipped with buffy whitish, and with the primaries and secondaries similarly soft at their tips and with the secondaries narrowly tipped with a pale border, sharper than in the adults. The pattern of wing-marking otherwise is like that of the adults. It is impossible to say whether the bright coloration of the back may not be due likewise to immaturity. Consequently, until more adequate material is available, any subdivision of the species is inadvisable.

There is a certain similarity of this species to *Pogonotriccus ophthalmicus* although the distinctions are easily seen. *P. ophthalmicus* has the back usually clearer green and the top of the head darker gray; the superciliary stripe is whiter and is formed by sharply defined subterminal bars on the feathers; the auriculars are basally yellower and terminally blacker; the upper wing-bar is more greenish and usually less sharply defined; the pale yellow portion of the outer margin of the inner tertial reaches only about half-way basad from the tip and usually is broader toward the tip although there is a greenish external border that may reach farther; the belly is more intensely yellow, the breast is more heavily suffused with green (rarely the upper belly, also), and the throat is more restrictedly whitish, with darker bases on the feathers. The mandible and feet are pale; the nostril is narrowed to a slit and is strongly operculate. *Oreotriccus plumbeiceps* has a duller back, paler cap, and grayer and more uniform superciliary stripe; auriculars more whitish basally and grayer distally;

<sup>1</sup> Earlier papers in this series comprise American Museum Novitates, Nos. 500, 509, 523, 524, 538, 545, 558, 584, 646, 647, 668, 703, 728, 753, 756, 757, 785, 819, 860, 861, 862, 889, 893, 894, 917, 930, 962, 963, 994, 1042, 1043, 1044, 1045, 1066, 1095, 1108, and 1109.

pale yellowish outer margin of the inner tertial narrower distally and reaching nearly or quite to the base of the feather; sharper and yellower upper wing-bar; lighter and clearer yellow belly and breast; and broader whitish throat. The mandible is blackish, not pale; the feet are darker; the nostril is more rounded and less operculate.

This species is not very common, judging by the number of specimens at hand. Peruvian records are from La Gloria and Garita del Sol. There is a single Ecuadorian record, from Machay; the bird recorded from Baeza proves to be a specimen of *Tyranniscus cinereiceps*.

#### SPECIMENS EXAMINED

##### *O. plumbeiceps*.—

###### COLOMBIA:

- "Bogotá," 4 (?) (incl. a paratype);
- La Candela, 1 ♂;
- Gallera, 1 ♂;
- Miraflores, 1 ♀;
- San Antonio, 1 ♀;
- Las Lomitas, 1 ♀;
- Salento, 1 ♀;
- Las Cruces, 1 ♀.

###### ECUADOR:

- Oyacachi, 2 ♂.

###### PERÚ:

- Idma, 2 ♂, 1 ♀;
- Huachipa, 2 ♀.<sup>1</sup>

#### *Tyrannulus elatus* (Latham)

*Sylvia elata* LATHAM, 1790, Ind. Orn., II, p. 708—based on Daubenton, Pl. Enl., 703, fig. 2; Cayenne.

*Tyrannulus reguloides* RINGWAY, 1888 (Aug.), Proc. U. S. Nat. Mus., X, p. 521—Diamantina, near Santarem, Brazil; U. S. Nat. Mus.

*Tyrannulus reguloides panamensis* THAYER AND BANGS, 1906, Bull. Mus. Comp. Zool., XLVI, p. 218—Savanna of Panamá; ♂; Mus. Comp. Zool.

*Tyrannulus elatus benii* CARRIKER, 1935 (Oct. 10), Proc. Acad. Nat. Sci. Phila., LXXXVII, p. 336—Chatarona, near Reyes, Bolivia; ♂; Acad. Nat. Sci. Phila.

A series of two hundred and thirty-five specimens of this species demonstrates such great variation among individuals from the same localities that I find it quite impossible to recognize any subspecies. In the matter of size, the largest bird I have measured is from northeastern Perú and the smallest from southeastern Ecuador.

<sup>1</sup> Specimens in Field Museum of Natural History, Chicago.

The birds from the Rio Negro, Brazil, show the darkest extreme of coloration but they are not consistent and many specimens from that region can be matched by birds from localities far distant. Similarly, the brightly colored birds from Panamá can be matched by specimens from other places, including the Guianas.

Aside from the variation in general tone of coloration, there are certain restricted areas that vary in color in a manner I am unable to explain except on the basis of simple individual variation. Thus, the sides of the head below the eyes may be gray or even whitish or may be definitely greenish yellow or an intermediate hue. The lores may be white or inconspicuously grayish. The sides of the crown are sometimes light gray, sometimes greenish, and sometimes overlaid with dusky. The throat may be whitish, grayish, or yellowish. The black of the cap may be broad and heavy or may be found only on the tips of the median feathers. The yellow of the crest varies considerably in depth of hue. Most of the yellow-throated birds are females but not all of them nor are most of the females so marked. Immature specimens, as well as adults, show the various types of coloration which, thus, may not be ascribed to differences of age.

Two birds from the Rio Negro, Brazil, have extensive remainders of juvenal plumage indicating this plumage to be largely Bone Brown, with buffy or cinnamonaceous tips on the feathers.

Peruvian records of *T. elatus* are from Sarayacu, "Upper Ucayali" (= near Cashiboya), Chayavitas, Yurimaguas, Moyobamba, and Pebas.

#### SPECIMENS EXAMINED

##### *T. elatus*.—

###### FRENCH GUIANA:

- Cayenne, 4 ♂, 3 ♀.

###### DUTCH GUIANA:

- Paramaribo, 8 ♂, 3 ♀, 2 (?) ;

- Little Wanica, 1 ♀.

###### BRITISH GUIANA:

- Carimang, 1 ♂.

###### VEENEZUELA:

- Altagracia, Suapure, Maipures, Cristóbal Colón, Mt. Duida, and El Merey, 5 ♂,  
3 ♀, 1 ♀.

###### BRAZIL:

- Faro, Rio Negro (Manaos, Muirapinimá,

Igarapé Cacao Pereira, Yucabí, Taurapessasu, Santa Isabel, Camanaos, San Gabriel, Carvoeira, Tatú, Cucuhý, and Tabocal), Utinga, Rio Tocantins (Baião, Mocajuba, Alcobaçá, Arumathéua), Rio Xingú (Tapará, Porto de Moz), Rio Tapajoz (Aramanay, Igarapé Brabo, Tauarý), Villa Bella Imperatriz, Rio Madeira (Borba, Rosarinho, Santo Antonio de Guajará), and Teffé, 95 ♂, 48 ♀.

PANAMÁ:

Chiriquí, Gamboa, El Villano, El Real, and Savanna near Panamá, 4 ♂, 1 ♀.

COLOMBIA:

"Bogotá," La Morelia, Puerto Valdivia, within twenty miles of Honda, Quibdo, Buenaventura, Cali, Media Luna, Río Frío, Barbacoas, and Bonda, 7 ♂, 8 ♀, 11 (?).

ECUADOR:

Esmeraldas, Pambilar, San Javier, and mouth of Río Curaray, 5 ♂, 3 ♀.

PERÚ:

Candamo, 1 ♂;  
Río Seco, 1 ♀;  
Río Mázan, 2 ♀;  
Iquitos, 1 ♂;  
Puerto Indiana, 4 ♂, 5 ♀;  
Orosa, 2 ♂;  
Santa Rosa, 3 ♂.

### *Ornithion inerme* Hartlaub

*Ornithion inerme* HARTLAUB, 1853, Jour. für Orn., I, p. 35—South America (= Bahia; Hellmayr).

*Microtriccus fasciatus* CARRIKER, 1934 (June 25), Proc. Acad. Nat. Sci. Phila., p. 328—Shapaja, Río Huallaga, Perú; ♀; Acad. Nat. Sci. Phila.

The present species has a rather extensive range but is not clearly divisible. A specimen from Utinga, near Pará, differs from all the others at hand by its decidedly grayish tone, with the yellowish tints lacking or greatly reduced, but another specimen, from Santa Maria de São Miguel, nearby, is yellowish like the birds from other localities. A male from Aramanay, Rio Tapajoz, has the throat more extensively whitish than the rest of the series, most of which have, however, a trace of whitish in that region. Specimens from Perú and Ecuador are of maximum size but there is no distinction that may be maintained on this basis.

"*Microtriccus fasciatus*" appears to have been based on a young bird of the present species which had ochraceous wing-bars, a character of which traces are observable in one specimen from Roraima. Other points in the original description agree exactly with *O. inerme*.

I am doubtful of the validity of the genus *Microtriccus* which differs from *Ornithion* only by its shorter tail and certain details of coloration such as the brown cap and unbarred wing (in the adult). I propose, therefore, to merge it with *Ornithion* and to call its single species *Ornithion semiflavum*.

I am a little sceptical regarding the occurrence of *O. inerme* in Bahia, accepted by Hellmayr as type locality. The type was without given locality and the specimen recorded by Pelzeln as from Bahia was not collected by himself but was a skin in the Vienna Museum purchased from one H. Frank. Pinto does not include the species in his book on the birds of Bahia and Mrs. Naumburg's collector, Kaempfer, failed to obtain it. The locality should, therefore, be taken with caution although it is not certainly incorrect.

### *Acrochordopus zeledoni leucogonyx* (Sclater and Salvin)

*Tyranniscus leucogonyx* SCLATER AND SALVIN, 1871, P. Z. S. London for 1870, p. 841, Pl. LIII, fig. 1—Bogotá; cotypes in British Mus.

There is a single record of *leucogonyx* from Marcapata, southeastern Perú, which justifies the inclusion of it in the Peruvian list. I have no material from Perú and very little from other countries. A female from Zamora, Ecuador, three "Bogotá" skins, and a bird without given sex from Buena Vista, Colombia, are at hand to represent the present form and one of the cotypes of *zeledoni* from Barranca, Costa Rica, a male from Aquinares, the same country, and a male from Boquete, Panamá, to represent the typical form.

There is not very much difference between the two series but typical *zeledoni* appears to have a whiter, less yellowish, throat and grayer, less greenish, pectoral stripes. Whether these characters would be found to hold in a more adequate series is problematical but, for the present, I prefer to recognize *leucogonyx*.

## SPECIMENS EXAMINED

*O. inerne*.—

## BRAZIL:

- Utinga, 1 ♂;  
 Santa Maria de S. Miguel, 1 ♂;  
 Rio Tapajoz, Tauary, 1 ♀;  
 Aramanay, 1 ♂;  
 Piquiatuba, 1 ♀;  
 Rio Negro, Tatú, 1 ♂.

## VENEZUELA:

- Río Mato, 1 ♂;  
 Suapure, 1 ♂;  
 Mt. Duida, Caño Seco, 1 ♂;  
 Esmeralda, 2 ♀;  
 Mt. Roraima, Arabupu, 1 ♂.

## ECUADOR:

- Río Suno, above Avila, 1 ♂;  
 below San José, 1 ♂.

## PERÚ:

- Lagarto, 1 ♂;  
 Santa Rosa, 1 ♀;  
 Rio Negro, west of Moyobamba, 1 ♂.  
 [? BOLIVIA]:  
 no locality (Rusby Coll.), 1 (?).

***Leptopogon superciliaris albidiventer***  
Hellmayr

*Leptopogon superciliaris albidiventer* HELLMAYR, 1918, Verh. Orn. Ges. Bayern, XIII, p. 305—Quebrada Onda, Yungas of Cochabamba, Bolivia; ♂; Munich Mus.

Bolivian birds are quite uniform with respect to the distinctly whitish wing-bars, but in southeastern Perú there is an occasional tendency toward the buffy wing-bars of true *superciliaris*. One specimen from Caradoc shows this tendency best but the bird appears to be not fully adult. An Idma specimen is very little different in this respect from the Bolivian birds but it and two other Idma skins are very slightly brighter yellow on the belly, though not so bright as *superciliaris*. In the southern part of the range of *s. superciliaris*, some specimens show the wing-bars as whitish as does *albidiventer* although the belly always is stronger yellow and the back brighter green.

Peruvian records are from Huaynapata, La Oroya, and La Pampa.

***Leptopogon superciliaris superciliaris***  
Tschudi

*L( leptopogon) superciliaris* TSCHUDI, 1844 (May), Arch. Naturg., X, (1), p. 275—Perú; Montaña de Vitoc suggested by Hellmayr, 1927; Berlin Mus.

*Leptopogon auritus* TACZANOWSKI, 1874, P. Z. S. London, p. 134—Amable María, Perú; type formerly in Warsaw Mus., now lost.

*Leptopogon superciliaris intermedius* CARRIKER, 1934 (June 25), Proc. Acad. Nat. Sci. Phila.; LXXXVI, p. 328—Eneñas, Dept. Junín, Perú; ♂; Acad. Nat. Sci. Phila.

A good series of birds from various localities extending from central Perú to northeastern Ecuador shows a rather definite tendency toward deeper cinnamonaceous or rufescent coloration of the wing-bars in the birds from the northern parts of this range, but it is not constant enough to warrant the erection of a subspecies for the northern birds. In the southern part of the range there is an obvious tendency toward the adjacent *albidiventer* and four specimens from this region have the wing-bars whitish or faintly buffy and the belly lighter yellow than usual. Other specimens show a varying amount of rufescence on the wing-bars and depth of color on the belly, reaching a maximum intensity that is exceeded by no more than three or four of the northern specimens. None of the northern birds is as pale as the palest central-Peruvian examples. It is unfortunate, in one respect, that this form was not described from the portion of its range where the deeper color is more regular, but all three names listed above were applied to specimens from the same region—*superciliaris* and *intermedius* to birds with light wing-bars; *auritus* to a rufous-winged specimen.

I believe, however, that *poliocephalus* (Cabanis and Heine, 1859, Mus. Hein., II, p. 55—New Granada=Bogotí) deserves recognition. In coloration it stands intermediate between *superciliaris* and *albidiventer* but in a different way from the central-Peruvian specimens discussed above. The upper parts are sometimes as dull as in *albidiventer*; the belly is intermediate; the wing-bars are variably intermediate. It resembles *transandinus* more than any other form and is sometimes almost indistinguishable from it but usually has the throat more whitish, the breast less heavily clouded and more yellowish, and the back of the head apparently always without the tinge of green that is shown by many *transandinus*, sometimes very pronouncedly.

Specimens from central and eastern Colombia make up the series of *poliocephalus* but one bird from Cocal and one from Alto Bonito, western Colombia, agree better with the west-Ecuadorian specimens. Specimens from eastern Panamá can not be distinguished from this western series, making it necessary to place *troglodytes* (Griscom, 1929, Bull. Mus. Comp. Zool., LXIX, p. 174—Cana, eastern Panamá) as a synonym of *transandinus*, the range of which thus extends up the western coast of Ecuador and Colombia to the southern part of Panamá. *L. s. hellmayri* (Griscom, t. c., p. 175—Carrillo, Costa Rica) is a little brighter in coloration and has more olivaceous edging on the back of the head (though one specimen of *transandinus* from Lita, Ecuador, is well supplied with this coloration) and may be maintained as reasonably distinct.

A specimen from "Yuntas" (?) = Juntas de Tamaná) can be assigned here though its head is somewhat discolored and brownish.

In the other direction, *L. s. venezuelensis* (Hartert and Goodson, 1917, Novit. Zool., XXIV, p. 413—Cumbre de Valencia, Venezuela) is brighter green above and brighter yellow below than *poliocephalus*, with a stronger yellow wash on the breast. It is fully as distinguishable as any of the other forms, none of which has any character that is not shared to some extent with one or more of the others.

Records of *superciliaris superciliaris* from Perú are from La Merced, Monterico, Eneñas, Amable María, Ropaybamba, Paltaypampa, Ray-Urmana, Pumamarca, Perico, and Moyobamba.

#### SPECIMENS EXAMINED

##### *L. s. albidiventris*.—

###### BOLIVIA:

Locotal, 10 ♂, 1 ♀;  
Roquefalsa, 1 ♂;

Yungas, 1 (?).

###### PERÚ:

Río Inambari, 1 ♂, 1 ♀, 1 (?);  
Sanjo Domingo, 2 ♀;  
Caradoc, 1 ♀;  
Idma, 2 ♂, 1 ♀.

##### *L. s. superciliaris*.—

###### PERÚ:

Tulumayo, 3 ♂, 5 ♀, 1 (?);

Utcuyacu, 2 ♀;  
Pozuzo, 1 ♂;  
Vista Alegre, 2 ♂<sup>1</sup>;  
Huachipa, 4 ♂<sup>1</sup>, 3 ♀<sup>1</sup>;  
Rioja, 1 ♀<sup>1</sup>;  
Huambo, 1 ♂;  
San Ignacio, 2 ♂, 1 ♀;  
Lomo Santo, 1 (?);  
Río Negro, 1 ♂;  
Huarandosa, 3 ♂, 1 (?).

###### ECUADOR:

Zamora, 2 ♂, 1 ♀;  
Río Suno, above Avila, 2 ♂;  
mouth of Río Curaray, 1 ♂.

##### *L. s. transandinus*.—

###### ECUADOR:

Paramba, 3 ♂;  
Lita, 1 ♀;  
"Quito," 1 (?);  
Río de Oro, 1 ♂, 1 ♀, 1 (?);  
Naranjo, 1 ♀;  
Las Piñas, 1 ♀;  
La Chonta, 1 ♀.

###### COLOMBIA:

Cocal, 1 ♀;  
Alto Bonito, 1 ♂;  
"Yuntas" [= Juntas de Tamaná], 1 ♂.

###### PANAMÁ:

Tacarcuna, 5 ♂, 2 ♀.

##### *L. s. hellmayri*.—

###### PANAMÁ:

Calovevora, 1 ♂;  
Veragua, 1 (?);  
Santa Fé, 1 ♂, 1 ♀.

##### *L. s. poliocephalus*.—

###### COLOMBIA:

"Bogotá," 5 (?);  
Villavicencio, 2 ♂;  
Buena Vista, 1 ♂, 1 ♀;  
east of Palmira, 1 ♂, 1 ♀;  
Peque, 1 ♂.

##### *L. s. venezuelensis*.—

###### VENEZUELA:

Cumbre de Valencia, 1 ♂ (type), 1 ♀;  
Quebrada Seca, 1 ♂, 3 ♀;  
Caripe, 1 (?);  
Cotiza, 1 ♂, 2 ♀, 2 (?);  
Guácharo, 1 ♂, 1 ♀;  
Cristóbal Colón, 3 ♂, 2 ♀;  
Río Neveri, 1 ♂, 1 ♀.

###### TRINIDAD:

Carenage, 1 ♂;  
Heights of Aripo, 1 ♂.

#### *Leptopogon amaurocephalus peruvianus* Sclater and Salvin

*Leptopogon peruvianus* SCLATER AND SALVIN, 1867, P. Z. S. London, p. 757—Chyavetas, Perú; British Mus.

Throughout the present species there is considerable variation in the hue of the cap, due in part to individual variation but

<sup>1</sup> Specimens in Field Museum of Natural History, Chicago.

also to the comparative ages of the birds. I have no specimens in fully juvenal plumage but certain examples of various subspecies that are not fully adult have the top of the head distinctly greenish though with a brownish tone. Between these and the adults there are birds with varying degrees of intermediate color though nothing I can find of taxonomic significance. Variation in the color of the wing-bars also occurs according to the freshness of the plumage, and molting specimens sometimes show both whitish and buffy feathers in the region in question. Nevertheless, there are differences and extremes of average coloration that permit the recognition of a number of subspecies, all of which vary in the manner mentioned above.

The Peruvian birds represent the darkest extreme of average coloration, with the top of the head the darkest brown, the back the darkest green, and the breast the most strongly overlaid with greenish color in rather marked distinction from the belly. Birds of this character occur also in northern Bolivia, extreme eastern Colombia, and the region of Mt. Duida, Venezuela, and presumably the records from Mt. Roraima and British Guiana refer to birds of this character. The largest specimen at hand is from Mt. Duida (sex unmarked; wing, 68 mm.; tail, 63) but the next in size is from Bolivia (♂; wing, 66.2; tail, 56.5).

The wing-bars average broader and deeper in coloration than those of typical *amaurocephalus* although some examples of the typical form are not clearly distinguished by this character. East-Bolivian specimens appear to be referable to *amaurocephalus* as are Paraguayan specimens and I am unable to subdivide this subspecies with the material at hand.

While one skin from the eastern side of the Eastern Andes of Colombia and one "Bogotá" skin agree well with *peruvianus*, other "Bogotá" skins and a bird from Chicoral show more resemblance to the Santa Martan *diversus* to which I refer them. This subspecies is extremely like some examples of *amaurocephalus*, with the breast pale and more yellowish than green-

ish and with the upper parts light and somewhat dull green. The top of the head is nearly the same hue of brown as in *amaurocephalus* but the tips of the feathers usually show a dusky shading that I have seen equally pronounced only in one east-Brazilian specimen, a male from Fazenda Cayoá, São Paulo.

The Central American forms, *pileatus* and *faustus*, do not appear to be very distinct from each other though they are rather darker than *diversus*. However, I have only three topotypes of *pileatus*, from Guatemala, two of which are quite old. Bangs, when describing *faustus*, pointed out that Guatemalan skins were intermediate between Costa Rican and Mexican birds but more like the Mexican examples. More study of the Central American representatives is needed.

Peruvian records of *peruvianus* are from La Merced, Monterico, Samiria, Chayavitas, and Nauta.

#### SPECIMENS EXAMINED

##### *L. a. amaurocephalus*.—

###### BRAZIL:

São Paulo, Victoria, 2 ♂;  
São Sebastião, 1 ♂, 1 ♀;  
Fazenda Cayoá, 1 ♂;  
Alto da Serra, 1 ♂;  
Ubatuba, 1 ♂;  
Piquete, 1 ♂;  
Avanhandava, 1 ♂;  
Rio de Janeiro, 1 (?);  
Matto Grosso, Chapada, 4 ♂, 3 ♀, 3 (?);  
Barão Melgaço, 1 ♂.

###### PARAGUAY:

Sapucay, 1 ♂, 1 ♀.

###### BOLIVIA:

Prov. Sara, "Camp Woods," 1 ♂, 2 ♀;  
Vermejo, 1 ♀.

##### *L. a. peruvianus*.—

###### BOLIVIA:

Todos Santos, 1 ♀;  
Mouth of Río San Antonio, 1 ♂, 1 ♀.

###### PERÚ:

Santa Rosa, 1 ♀;  
Mouth of Río Urubamba, 2 ♀.

###### COLOMBIA:

Villavicencio, 1 ♂;  
"Bogotá," 1 (?).

###### VENEZUELA:

Mt. Duida, Caño Seco, 1 ♂, 1 ♀, 1 (?).

##### *L. a. diversus*.—

###### COLOMBIA:

Chicoral, 1 ♂, 1 (?);  
"Bogotá," 5 (?);  
Santa Marta, Bonda, 2 (?).

*L. a. faustus*.—

## PANAMÁ:

Veraguas, Santa Fé, 1 ♂, 1 ♀;  
El Villano, 1 ♂;  
Chiriquí, Bogava, 2 ♀;  
Savanna near Panamá, 1 ♀;  
[Lion Hill], 1 ♂;  
Cerro Montoso, 1 ♀.

## COSTA RICA:

Guapiles, 2 ♂, 1 ♀;  
Miravalles, 1 ♀.

## NICARAGUA:

Los Sabalos, 1 ♂, 1 ♀, 1 (?) .

*L. a. pileatus*.—

## GUATEMALA:

Chimoxan, 1 ♂;  
(no other locality), 2 (?) .

***Leptopogon taczanowskii* Hellmayr**

*Leptopogon rufipectus* TACZANOWSKI, 1884,  
Orn. Pér., II, p. 249—Ropaybamba and Ray-Urmana, Perú; ♀ from Ray-Urmana claimed  
as type by Stolzmann and Domaniewski, 1927;  
Warsaw Mus.

*Leptopogon taczanowskii* HELLMAYR, 1917,  
Verh. Orn. Ges. Bay., XIII (2), p. 198—new  
name for *Leptopogon rufipectus* Taczanowski  
(not *Tyrannula rufipectus* Lafresnaye, 1846).

*Leptopogon inca* BANGS AND PENARD, 1922  
(Oct. 17), Proc. Biol. Soc. Wash., XXXV, p.  
225—new name for *L. rufipectus* Tacz.

I can find no distinctions between birds  
from central Perú and a single specimen  
from the northern part of the country.

It is possible that this form should be  
considered as a subspecies of the Ecuadorian-Colombian *rufipectus* which it matches  
in pattern and in some details of coloration.  
There is, however, a rather pronounced  
hiatus between the ranges of the two forms  
with no suggestion of intermediacy in col-  
oration in the specimens I have examined  
and it may be best to keep them specifically  
distinct for the present.

I revert to the specific name, *rufipectus*,  
for the northern birds since the name is  
not clearly preoccupied by Lesson's earlier  
*rufipectus* even if the names of the re-  
spective genera in which they were origi-  
nally placed, *Tyrannula* and *Tyrannulus*,  
are considered to be homonymous, a  
point also open to question. The series  
at hand shows no difference in size be-  
tween Colombian and Ecuadorian birds.

Records of *taczanowskii* are from Ray-  
Urmana, Ropaybamba, and Maraynioc.

## SPECIMENS EXAMINED

*L. rufipectus*.—

## COLOMBIA:

Aguadita, 2 ♂, 2 (?) ;  
Santa Elena, 1 ♀ ;  
Salento, 1 ♂ ;  
La Candelaria, 2 ♀ ;  
La Palma, 1 ♀ ;  
"Bogotá," 4 (?) .

## ECUADOR:

Baeza, 2 ♂, 1 ♀ ;  
upper Sumaco, 3 ♂, 1 ♀ .

*L. taczanowskii*.—

## PERÚ:

La Lejia, 1 ♂ ;  
Chelpes, 2 ♂, 1 ♀ ;  
Rumicruz, 1 ♂ ;  
San Miguel, foot of Machu Picchu, 1 ♂,  
2 ♀ ;  
Idma, 1 ♂ .

***Mionectes striaticollis striaticollis***  
(D'Orbigny and Lafresnaye)

*Muscicapa striaticollis* D'ORBIGNY AND  
LAFRESNAYE, 1837, Mag. Zool., VII, Cl. 2,  
"Syn. Av." p. 51—Yuracares, rep. Boliviana;  
Paris Mus.

Birds from southeastern Perú, as far  
northwestward as the Urubamba Valley,  
are in relatively close agreement with  
typical Bolivian specimens. The Uru-  
bamba birds show a tendency toward  
*poliocephalus* of central Perú by occasional  
brightening of general color and widening  
of the clear yellow area on the belly but  
the broad striping on the throat and chest  
remains distinctive and some examples are  
indistinguishable from the Bolivian series.

The bill, in this form, has the mandible  
more uniformly pale than it is in any of  
the other subspecies. Occasionally there  
is a little darkening toward the tip but it is  
rarely pronounced. In *poliocephalus* the  
distal portion of the mandible is more  
noticeably brown; in the remaining forms  
it is rather abruptly dusky. The Uru-  
bamba Valley specimens agree with Bolivian  
skins in respect to the more uniform  
mandible.

Records assignable to this form are from  
Huaynapata and Río Cadena.

***Mionectes striaticollis poliocephalus***  
Tschudi

*Mionectes poliocephalus* TSCHUDI, 1844  
(May), Arch. Naturg., X (1), p. 275—Perú;  
Valley of Vitoc suggested by Hellmayr, 1927;  
Mus. Neuchâtel.

This form has the brightest and yellowest-green back, on average, of all the forms of the species though there is much variation in this respect. Birds at hand from Chelpes are the brightest of all; those from Tulumayo, Rumiñez, and Utcuyacu average distinctly darker, but this is certainly only individual variation. The top of the head usually is clear gray but there is sometimes a suggestion of green on the nape, never as pronounced as in most *palambae*. The belly is about the same as in *palambae* or a little paler yellow but the breast, throat and flanks are more boldly marked than in that form, being about midway between *palambae* and *striaticollis* in this respect. The tip of the mandible is darker brown than in *striaticollis*, lighter than in *palambae*.

Records that may be assigned to this form are from Garita del Sol, Puyas-Yacu, Paltaypampa, and Tamiapampa, all in the Subtropical Zone above the Chan-chamayo Valley.

#### *Mionectes striaticollis palambae* Chapman

*Mionectes striaticollis palambae* CHAPMAN, 1927 (Feb. 19), Amer. Mus. Novit., No. 250, p. 4—Palamba, Perú; ♂; Amer. Mus. Nat. Hist.

*Mionectes striaticollis flaviventris* CARRIKER, 1934 (June 25), Proc. Acad. Nat. Sci. Phila., LXXXVI, p. 329—Río Jelashte, Perú, ♂; Acad. Nat. Sci. Phila.

This form has the clearest under parts of all the forms, with a minimum of dark streaking on the flanks and of light streaking on the throat and breast while the back of the head shows a transition from the green of the back to the gray of the anterior crown. There is some variation in the depth of yellow on the belly but it is always as deep as in the maximum of the other forms and deeper than in most. The breast is strongly dark green, approaching *columbianus* in that respect.

I have not recently examined the birds from Vista Alegre and Chinchao that I once (1930, Field Mus. Nat. Hist. Publ., Zool. Ser., XVII, p. 397) referred to *poliocephalus*, but my notes indicate that these skins were rather finely streaked on the chest and had a certain amount of

greenish coloration on the hind neck. I believe they must go in *palambae*.

Through the kindness of Mr. R. M. de Schauensee and Mr. James Bond of the Academy of Natural Sciences of Philadelphia I have been enabled to see the typical series of *M. s. "flaviventris."* There is no doubt that the upper parts of the Río Jelashte birds are very slightly brighter and more yellowish green than those of specimens from a little farther north but they are not as bright as in some *poliocephalus* toward which they tend also in other respects. The striations of the throat and breast are broader than in typical *palambae* but finer than in *poliocephalus* and the greenish coloration on the occiput is likewise in an intermediate condition. Judging by the situation in other forms of the species, the differences exhibited by the series of "*flaviventris*" in comparison with more typical *palambae* are about what might be expected within the limits of individual variation of *palambae*, allowing for some geographical and taxonomic approach toward *poliocephalus*. The tip of the mandible in the Río Jelashte and Utubamba birds as well as in the Vista Alegre and Chinchao examples, is contrastingly dusky as in other *palambae*.

Records assignable to *palambae* are from Tambillo, Tabaconas, Chirimoto, Huambo, Chinchao, Vista Alegre, Tamborapa, San Ignacio, Chira, and Leimebamba.

The ranges of *columbianus* and *viridiceps* come very near to overlapping in southern Ecuador. Eleven birds from Zaruma, Alamor, Las Piñas, El Chiral, and Punta Santa Ana are definitely *viridiceps* but three examples from San Bartolo, Salvias, and Celica are just as certainly *columbianus*. However, these last-named localities are at an elevation of from 6900 to 7500 feet while the specimens of *viridiceps* are all from 6000 feet or below. From the material at hand, therefore, it appears that there is an altitudinal difference in the ranges of these two forms although both presumably are inhabitants of the Subtropical Zone. Future study in the field should be made to determine the exact nature of the boundary that limits the ranges of these two forms in this region.

## SPECIMENS EXAMINED

*M. s. striaticollis*.—

## BOLIVIA:

- Cochabamba, Locotal, 3 ♂, 1 ♀;  
 Yungas, 3 ♂, 1 ♀;  
 Incachaca, 3 ♂;  
 Roquefalsa, 1 ♀;  
 Chaco, 1 ♂;  
 La Paz, Nequejahuira, 1 ♀.

## PERÚ:

- Ocöneque, 1 ♂;  
 Río Inambari, 2 ♀;  
 Idma, 4 ♂, 2 ♀;  
 San Miguel Bridge, 2 ♂, 1 ♀.

*M. s. poliocephalus*.—

## PERÚ:

- Chelpes, 8 ♂;  
 Tulumayo, 1 ♀;  
 Rumieruz, 1 ♀, 1 (?);  
 Utcuyacu, 3 ♂, 2 ♀.

*M. s. palambla*.—

## PERÚ:

- Palambla, 2 ♂ (incl. type);  
 Lomo Santo, 3 ♂, 1 ♀;  
 Ucheo, 1 ♂;  
 Chugur, 1 ♀;  
 Taulis, 1 ♀;  
 Río Jelashte, 4 ♂ (incl. type of "flaviventris")<sup>1</sup>, 1 ♀;  
 Utéubamba, 1 (?)<sup>1</sup>.

*M. s. viridiceps*.—

## ECUADOR:

- Zaruma, 3 ♂ (incl. type), 3 ♀;  
 Alamar, 1 ♀;  
 Las Piñas, 1 ♀;  
 El Chiral, 2 ♀;  
 Punta Santa Ana, 1 ♀;  
 Gualea, 1 ♂;  
 Coco, 1 ♀;  
 Chimbo, 1 ♀;  
 "Papallacta," 2 ♂, 1 ♀ (locality doubtful);  
 "Pichincha," 1 ♂, 1 ♀ (locality doubtful).

*M. s. columbianus*.—

## ECUADOR:

- Celica, 1 ♂;  
 Salvias, 1 ♀;  
 San Bartolo, 1 ♂;  
 (above) Sabanilla, 1 ♀;  
 above Baeza, 1 ♂;  
 Oyacachi, 1 ♀;  
 Sumaco, 4 ♂, 1 ♀.

## COLOMBIA:

- Cerro Munchique, 1 ♀;  
 El Roble, 1 ♂;  
 east of Palmira, 1 ♀;  
 Santa Elena, 1 ♂;  
 La Candela, 1 ♂<sup>2</sup>.

*Mionectes olivaceus fasciaticollis*  
Chapman

*Mionectes olivaceus fasciaticollis* CHAPMAN,  
 1923 (April 11), Amer. Mus. Novit., No. 67, p.

<sup>1</sup> Specimens in Academy of Natural Sciences of Philadelphia.

<sup>2</sup> Specimen in Field Museum of Natural History, Chicago.

9.—Tulumayo, Vitoc Valley, Perú; ♂; Amer.  
 Mus. Nat. Hist.

I can find no clear distinctions from the southeastern portion of Perú to northeastern Ecuador although the most northern birds show a little tendency toward darker markings on the breast and lighter, duller yellow on the belly in a more restricted area, probably a variation in the direction of *pallidus* of eastern Colombia.

A young male from Río Tavara, southeastern Perú, has all its colors duller than usual and the light striping and edges of the throat and breast so reduced and inconspicuous as to give a superficial resemblance to *olivaceus*, though the colors are much too dull. The peculiar appearance undoubtedly is due to immaturity since young examples of some of the other subspecies are duller and less prominently marked than the adults of the same forms. A young male from the Río Suno, Ecuador, is nearly as dull as the Río Tavara specimen.

An adult male from "Guayabamba" (= upper Río Huambo) has the center of the abdomen quite whitish and the throat a little grayish but has the breast and flanks marked with green and yellow, both of a duller tone than usual. This probably is no more than individual variation since a "Guayabamba" male in first annual plumage is normally yellowish.

The type of *fasciaticollis* is said by the describer to be a female but it was originally sexed by the collector as a male and, although it lacks the modification of the ninth (subexternal) primary found in adult males, it is of large size (wing, 69 mm., tail, 50.5) and is rather certainly a male in first winter plumage.

Peruvian records are from Huaynapata, Yahuarmayo, Monterico, La Gloria, and Huambo.

Among the series of related forms studied in the present instance are thirteen examples from the Mérida region of Venezuela which combine the dorsal appearance of *venezuelensis* with the ventral coloration and pattern of *galbinus*. Since they occupy an area somewhat apart from the known ranges of these two forms, they may well deserve distinction by name and may be known as follows.

**Mionectes olivaceus meridae, new subspecies**

TYPE from El Valle, near Mérida, Venezuela. No. 500,183, American Museum of Natural History. Adult male collected February 18, 1897, by Salomon Briceño Gabaldon and sons.

DIAGNOSIS.—Intermediate between *M. o. venezuelensis* of northeastern Venezuela and *M. o. galbinus* of the Santa Marta region of northern Colombia, having the upper parts about the same as those of *venezuelensis* but the under parts as in *galbinus*; the individual characters are not intermediate.

RANGE.—Apparently restricted to the Mérida region of Venezuela, probably ranging southwestward to the Colombian border.

DESCRIPTION OF TYPE.—Top of head dark Olive Green with indistinct darker centers on the feathers; back light Olive Green with pale shafts, a dusky median lunule, gray bases and, more pronouncedly on the mantle, a whitish area basal of the dark lunule, but all these markings are inconspicuous unless the feathers are disarranged. Lores dull, light oliveaceous, freckled with paler dots; auriculars yellowish olive with paler shafts; a whitish patch behind the upper posterior corner of the orbit; chin and throat Citron Yellow, freckled with Serpentine Green; breast with (concealed) whitish shaft-stripes, submarginal stripes of Serpentine Green, and margins of Barium Yellow, these markings continued somewhat less conspicuously down the flanks; belly Citron Yellow  $\times$  Straw Yellow; under tail-coverts Straw Yellow. Wings dark brown; remiges margined, very narrowly on the primaries, with Dull Citrine  $\times$  Buffy Citrine, becoming whitish toward the tips of the tertials; ninth (subexternal) primary longer than the tenth, with an abrupt decrease in width about 20 mm. from the tip of the inner web which is then of uniform, narrowed width distad to about 7 mm. from the tip where it rapidly widens and then narrows to an acute tip (producing a long indentation on the inner margin of the feather); the shaft is bent slightly outward for the terminal 8 mm.; lesser upper wing-coverts like the back; median and greater series dark brown with the outer margins oliveaceous basally (beyond the tips of the overlying series) but Cartridge Buff terminally, forming two interrupted wing-bars; under wing-coverts Cream Buff; inner margins of remiges Light Buff. Tail warm Hair Brown with outer margins of the feathers oliveaceous; under aspect of rectrices of a lighter and warmer tone. Bill (in dried skin) blackish with basal half of mandible pale brownish; feet pale brown. Wing, 70 mm.; tail, 50; exposed culmen, 11; culmen from base, 15; tarsus, 16.5.

REMARKS.—Females probably like the males but distinctly smaller and without the emarginated ninth primary though there may be a suggestion of slight alteration in the contour on the distal portion.

However, only one bird in the present series is sexed as a female and it is obviously an adult male, both by size and modified primary, agreeing exactly with the type, one sexed male and three obviously adult males without given sex. Three birds sexed as males have the size of the adult males but no strongly modified primaries. They probably are in first winter plumage. Three specimens, without given sex, also have unmodified primaries but are much smaller than the others (wing, 63–64 mm. instead of 68–71.5; tail, 45.5–47 instead of 50.1–56.5). Judging by the other subspecies of this group, these are females.

I have no hesitation in giving a name to this form in view of the kind of intermediacy that is presented. The upper parts are just as dark as in any *venezuelensis* while the under parts are just as bright and the throat is as definitely speckled, not striped, as in *galbinus*. It thus is impossible to refer the Mérida population to either of the other subspecies mentioned. There is no indication of approach toward *M. o. pallidus* of eastern Colombia as might be expected from the geographical position of the ranges.

A good series of specimens from the Veraguas region of Panamá is inseparable from *hederaceus* of western Colombia but a single young bird from Boquete, Chiriquí, seems to be closer to the Costa Rican *olivaceus* although there is a slight possibility that adult examples from western Panamá might fail to substantiate this assignment.

SPECIMENS EXAMINED

*M. o. olivaceus*.—

COSTA RICA:

- Aquinares, 2 ♂, 1 ♀;
- La Honduras, 1 ♂;
- Navarro, 2 ♂;
- Guayabo, 1 (?)
- Azahar de Cartago, 2 ♂;
- Turrialba, 1 ♂.

PANAMÁ:

- Chiriquí, Boquete, 1 ♀.

*M. o. hederaceus*.—

PANAMÁ:

- Veraguas, Chitrá, 5 ♂;
- Santa Fé, 2 ♂, 4 ♀;
- Rio Calovevora, 1 ♂;
- [Lion Hill], 1 ♀;

Tacarcuna, 1 ♂, 5 ♀;  
East slope of Tacarcuna, 1 ♀;  
El Real, 3 ♂, 1 ♀.

**COLOMBIA:**

Juntas de Tamaná, 1 ♂;  
Puerto Valdivia, 1 ♀;  
Cocal, 1 ♂;  
Nóvita Trail, 1 ♂;  
San José, Cauca, 1 ♂, 1 ♀;  
Barbacoas, 2 ♂, 2 [♀].

**ECUADOR:**

Paramba, 3 ♂, 1 ♀;  
Mindo, 2 ♀;  
"Pichincha," 1 "♂" [= ♀].

*M. o. pallidus*.—

**COLOMBIA:**

Buenavista, 1 [♂], 1 ♀ (type);  
"Bogotá," 1 (?).

*M. o. galbinus*.—

**COLOMBIA:**

Santa Marta, Valparaiso, 8 ♂, 2 ♀, 9 (?);  
El Libano, 1 ♀, 2 (?).

*M. o. venezuelensis*.—

**VENEZUELA:**

Guácharo, 1 ♂, 1 ♀ (type), 1 (?);  
Cotiza, 1 ♂;  
La Tigrera, 1 ♀;  
Campos Alegre Valley, 1 ♀;  
Los Palmales, 1 ♂, 3 ♀;  
Loma Redonda, 2 ♂;  
Cumbre Chiquitos, 1 ♀;  
Cristóbal Colón, 1 ♀;  
Cumaná, 1 [♂];  
Quebrada Seca, 2 ♂;  
Cumbre Valencia, 1 ♂;  
La Trinidad, 1 ♂;  
"Brazil = Orinoco-skin," 1 (?).

*M. o. meridae*.—

**VENEZUELA:**

Mérida, 2 [♂], 2 [♀];  
El Valle, 2 ♂ (incl. type), 2 [♂];  
El Pantar, 1 ♂;  
Escorial, 1 ♂, 1 [♂];  
Culata, 1 [♂];  
Lagunillas, 1 [♀].

*M. o. fasciaticollis*.—

**ECUADOR:**

Zamora, 2 ♂, 2 ♀;  
Río Suno, above Avila, 1 ♂, 2 ♀;  
below San José, 1 ♂, 2 ♀;  
lower Sumaco, 1 ♂;  
Cerro Galeras, 2 ♂.

**PERÚ:**

Huarandossa, 1 ♂;  
"Guayabamba," (= upper Río Huambo),  
2 ♂;  
Nuevo Loreto, 1 ♂, 1 (?);  
Chinchao, 1 ♂<sup>1</sup>;  
Huachipa, 3 ♂<sup>1</sup>, 2 ♀<sup>1</sup>;  
San Ramón, 1 ♂<sup>1</sup>;  
Tulumayo, 1 ♂ (type), 4 ♀;  
Pozuzo, 1 ♂;  
La Pampa, 1 ♀;  
Río Tavará, 1 ♂.

<sup>1</sup> Specimens in Field Museum of Natural History, Chicago.

**Pipromorpha oleaginea oleaginea**  
(Lichtenstein)

*Muscicapa oleaginea* LICHTENSTEIN, 1823,  
Verz. Doubl. Berl. Mus., p. 55—Bahia; Berlin  
Mus.

I have seen only a single specimen from anywhere near the type locality of *oleaginea*, an adult female from Lagôa Juparaná, Espírito Santo. This specimen has certain distinctions from seventy-nine other examples of the species from a wide range of localities in other parts of Brazil, agreeing with the characterization of typical *oleaginea* given by Mr. Todd (1921, Proc. Biol. Soc. Wash., XXXIV, pp. 176, 182, 184) in distinction from *chloronota*. The east-Brazilian bird has the under parts much like those of *pallidiventris* though paler than many of the latter, and with the breast a little darker in hue but without any olivaceous tinge. If these characters are constant, *oleaginea* should be restricted to the birds of southeastern Brazil. Pará and lower Amazonian specimens are quite different as will be shown below, and upper Amazonian examples belong to the still different *chloronota* whose characters are as follows.

**Pipromorpha oleaginea chloronota**  
(D'Orbigny and Lafresnaye)

*Muscicapa chloronotus* D'ORBIGNY AND LAFRESNAYE, 1837, Mag. Zool., VII, Cl. 2, "Syn. Av." p. 51—Yuracares, Bolivia; ectypes in Paris Mus.

*Pipromorpha oleaginea chapmani* CHUBB, 1919, Ann. Mag. Nat. Hist., (9) IV, p. 302—Villavicencio to Medina, Llanos of River Meta, Colombia; British Mus.

North-Bolivian specimens differ from the single east-Brazilian *oleaginea* at hand by distinctly darker under parts with a strong olivaceous suffusion on the breast and throat. The belly frequently reaches a depth of color approaching Mars Yellow × Raw Sienna in great contrast to the light ochraceous of *oleaginea*, and there is always this tawny tendency even in the lighter extremes of individual variants.

I am unable to separate from the Bolivian specimens those from the nearby upper Río Madeira region of Brazil, two skins from Teffé, and a considerable series from the right bank of the lower Río Negro,

both banks of the upper part of that stream, southern Venezuela up to the Caura Valley, and southeastern Colombia. This is particularly interesting in view of the slight, though apparently definite, distinction of birds from the two banks of the lower Marañón in Perú.

Sixty-one specimens from the Guianas, the left bank of the lower Rio Negro and the region of the Jamundá, north of the Amazon in Brazil, and the area from the left bank of the lower Rio Madeira to the Pará district, south of the Amazon, agree fairly well with *chloronota* in coloration but have a notably different modification of the outer primaries. In *chloronota*, as apparently also in typical *oleaginea*, the outer primaries are very little modified, being relatively broadly rounded at their tips, sometimes with a slight subterminal sinuation on three or more feathers and a little narrowing of the tip though this is never acute. Such modification as exists occurs in both sexes, perhaps most often in the oldest birds.

The Guiana-Manaos-Pará series, even in apparently young birds, always shows distinctly more acuminate tips on at least the outermost primary, usually on three or four primaries. Sometimes the acumination is gradual but frequently the end of the feather is quite slender for five or six millimeters basad where it broadens rather rapidly. Dr. Chapman (1931, Bull. Amer. Mus. Nat. Hist., LXIII, p. 98) called attention to the same sort of structure in *P. o. pallidiventris* as compared with *parca*, and it is equally serviceable in the present instance.

Since there is a name available for the birds of the Pará district, which I find in close agreement with the lower Madeira-Manaos-Guiana specimens, the name may be used for this subspecies, now to be known as *Pipromorpha oleaginea wallacei* Chubb [1919, Ann. Mag. Nat. Hist., (9), IV, p. 301—Pará; British Mus.].

As synonymy, must be included *Pipromorpha turi turi* Sztolcman [1926, Ann. Zool. Mus. Pol. Hist. Nat., V (4), p. 225—Cayenne; ♂; Warsaw Mus.], based rather certainly on a gray aberration comparable to the type of "*Mionectes semi-*

*schistaceus*" Cherrie (1892, Proc. U. S. Nat. Mus. XV, p. 27—Guayabal, Costa Rica; U. S. Nat. Mus.) = *P. o. assimilis* (Slater).

#### **Pipromorpha oleaginea hauxwelli Chubb**

*Pipromorpha oleaginea hauxwelli* CHUBB, 1919, Ann. Mag. Nat. Hist., (9) IV, p. 302—Pebas, Perú; ♂; British Mus.

Thirty-five birds from eastern Ecuador and adjacent parts of Perú north of the lower Marañón stand out rather distinctly from the large series of *chloronota* by reason of their lighter under parts although the upper parts are, if at all different, a little darker than the average of the other form. Accordingly, I suggest the recognition of *hauxwelli* for the population of this rather restricted area. Two skins from the Río Mázan are rather lighter green on the back than the specimens from the Napo but agree with them in ventral coloration and may be referred to *hauxwelli*. One specimen, labelled "Iquitos," is much like the birds from the south bank of the Marañón and, in fact, may have come from opposite Iquitos instead of from the same side of the river as the town of that name, but it is intermediate enough in characters to be placed here.

#### **Pipromorpha oleaginea maynana Sztolcman**

*Pipromorpha turi maynana* SZTOLCMAN, 1826 (Dec. 31), Ann. Zool. Mus. Pol. Hist. Nat., V (4), p. 226—Yurimaguas, Perú; ♂; Warsaw Mus.

Birds from south of the lower Marañón as well as west of the middle portion of the river (above the Pongo de Manseriche) and from the Río Ucayali are even lighter below than *hauxwelli* though with the throat averaging more greenish and, in addition, are lighter and more yellowish green above, agreeing with *pacifica* in dorsal, though not in ventral, coloration. The differences are not pronounced but are apparent both in most single specimens and in series although intergradation is complete and two or three specimens of each series are equivocal. The extremes, however, are pronounced.

The tendency of this form is toward the

characters of the light-colored western and Central American forms and there is particular approach toward *parca*, much more than is shown by any Colombian specimen of *chloronota* that I have seen. The west-Ecuadorian *pacifica* is still paler on the under parts but very similar above. There may be some significance, therefore, in the pale coloration of *maynana* in respect to possible lines of dispersal across the Andes in northern Perú which will justify the recognition of this form on the minor characters exhibited here. The coloration of the north-Venezuelan *pallidiventris* is very close to that of *parca* but the different shape of the outer primaries in these two forms is not bridged satisfactorily except by way of *wallacei* and *chloronota*.

The type of Sztolcman's "*maynana*" appears, from its description, to be a gray aberration like the types of "*turi*" and "*semischistaceus*" mentioned earlier. An occasional specimen at hand of one subspecies or another, including the present one, shows slight but distinct grayish tendencies, though none I have seen completely lacks all trace of olive coloration as is said to be the case in the three gray birds that were separately made the types of the three supposed new forms.

Van Rossem (1938, Field Mus. Nat. Hist., Zool. Ser., XXIII, p. 397) has proposed the submergence of *Pipromorpha* under *Mionectes*. He bases his contention on the grounds that some members of the genus *Pipromorpha* have the subexternal (ninth) primary narrower than the eighth or tenth as is the case in *Mionectes*. While admitting that the two genera are very similar in many respects, I believe that there is still sufficient difference on which to base generic distinction, more than the simple relative width of the outer primaries. Two distinct patterns of coloration are presented, each involving more than one species. In *Mionectes* the greatest modification occurs in the subexternal primary; in *Pipromorpha* the outer primary is most strongly modified. I find little evidence of the suggested reduction in width of the ninth primary in *Pipromorpha* in comparison with the tenth although single specimens sometimes have a slight situation

on the inner margin that reduces the width of the feather a little at that point. In *Mionectes* there often is a pronounced sexual difference in size, markedly less obvious in *Pipromorpha*. Possibly these features ought to be held as of no more than subgeneric value but the two groups are easily distinguished and I prefer to maintain their generic separation.

#### SPECIMENS EXAMINED

*P. o. oleaginea*.—

BRAZIL:

Espirito Santo, Lagôa Juparaná, 1 ♀.

*P. o. chloronota*.—

BOLIVIA:

Mouth of Río San Antonio, 2 ♂;  
Mission San Antonio, 1 ♀.

BRAZIL:

Rio Madeira, Humaythá, 1 ♀;  
Calamá, 2 ♂, 1 (?) ;  
Rio Machados, Jamarysinho, 1 ♂;  
Rio Roosevelt, "6th of March Rapids," 1 ♀;  
Teffé, 1 ♂, 1 ♀ ;  
Rio Negro, Tatú, 3 ♂, 2 ♀, 2 (?);  
Mt. Curycuryari, 1 ♀ ;  
Tabocal, 6 ♂ ;  
Yucabí, 1 ♂, 1 ♀, 1 (?) ;  
Muirapinimá, 1 ♀ ;  
Santa Isabel, 1 ♂, 1 ♀ ;  
Igarapé Cacao Pereira, 1 ♀ ;  
San Gabriel, 2 ♂, 3 ♀ ;  
Camanas, 3 ♂ ;  
Rio Uaupés, Ianarete, 4 ♂, 1 ♀ .

VENEZUELA:

Mt. Duida, Caño Seco, 4 ♂ ;  
Savana Grande, 1 ♂ ;  
Valle de los Monos, 1 ♂ ;  
Campamento del Medio, 2 ♂ ;  
Píe del Cerro, 1 ♂ ;  
Playa del Río Base, 3 ♂, 1 ♀ ;  
Esmeraldas, 4 ♂ ;  
[western] foot of Duida, 1 ♂, 1 ♀ ;  
Río Cassiquiare, Solano, 1 ♂, 1 ♀ ;  
Buena Vista, 7 ♂ ;  
El Merey, 1 ♀ ;  
mouth of Río Ocamo, 1 ♀ ;  
opposite mouth of Ocamo, 1 ♀ ;  
Río Huaynia, junction of the Cassiquiare,  
1 ♀, 2 (?);

Río Orinoco, Suapure, 5 ♂ ;  
Nericagua, 1 ♂ ;  
Río Caura, Nicaré, 3 ♀ ;  
La Unión, 1 ♂, 2 ♀ ;  
La Prición, 1 ♂ .

COLOMBIA:

Villavicencio, 1 ♂, 1 ♀ ;  
Florencia, 2 ♀ ;  
"Bogotá," 6 (?).

*P. o. hauxwelli*.—

ECUADOR:

mouth of Río Curaray, 12 ♂, 4 ♀ ;  
Río Suno, above Avila, 2 ♂, 2 ♀ ;

lower Río Suno, 2 ♂, 2 ♀;  
below San José, 3 ♂;  
mouth of Lagarto Cocha, 1 ♀.

## PERÚ:

Apayacu, 4 ♂, 1 ♀;  
Puerto Indiana, 1 ♂, 1 ♀;  
Iquitos, 1 ♂;  
Río Mázan, 2 ♂.

*P. o. maynana*.—

## PERÚ:

Chayavitas, 2 ♂, 1 ♀;  
Chamicuros, 1 ♂;  
Río Seco, 1 ♂, 1 ♀;  
Río Negro, west of Moyobamba, 1 ♂;  
Pomará, 1 ♂, 2 ♀, 2 (?);  
Orosa, 1 ♂, 2 ♀;  
Lagarto, 2 ♂;  
Santa Rosa, 2 ♂.

*P. o. pacifica*.—

## ECUADOR:

Chongon Hills, 1 ♂;  
Alamor, 2 ♂, 1 ♀;  
Cebollal, 4 ♂, 2 ♀;  
Las Piñas, 1 ♂;  
Santa Rosa, 2 ♂;  
Chone, 1 ♀;  
Río de Oro, 1 ♀;  
Carondelet, 1 ♂;  
Esmeraldas, 1 ♀.

*P. o. wallacei*.—

## BRAZIL:

Pará, Prata, 2 ♂;  
Utinga, 3 ♂;  
Providencia, 1 ♀;  
Mocajatuba, 1 ♂;  
Río Tocantins, Arumatheua, 1 ♂;  
Mocajuba, 1 ♂;  
Río Xingú, Tapará, 1 ♀;  
Porto do Moz, 1 ♂;  
Río Tapajoz, Aramanay, 1 ♀;  
Igarapé Brabo, 3 ♂, 1 (?);  
Igarapé Amorin, 1 (?);  
Caxiricatuba, 2 ♂, 3 ♀;  
Río Amazonas, Villa Bella Imperatríz, 1 ♂;  
Río Madeira, Igarapé Auará, 1 ♀;  
Rosarinho, 2 ♂, 1 ♀;  
Lago Miguel, 1 ♂;  
Río Negro, Hacienda Río Negro, 1 ♂, 1 ♀;  
Campos Salles, Manaos, 4 ♂;  
Río Jamundá, Faro, 1 ♀;  
Castanhal, 4 ♂, 1 ♀;  
Serra do Espelho, 2 ♂;  
Boca Río Paratucú, 2 ♂;  
San José, 2 ♂.

## FRENCH GUIANA:

Roche Marie, 2 ♂.

## BRITISH GUIANA:

Tumatumari, 1 ♂;  
Potaro Landing, 2 ♂;  
Wismar, 1 ♀;  
Bartica Grove, 1 ♂;  
Rockstone, 1 ♂.

## DUTCH GUIANA:

Little Wanica, 1 ♂;  
Wanica, 1 (?);  
Paramaribo, 2 ♂, 1 (?);

Lelydorp, Para, 1 ♂;  
"Interior," 2 ♂.

*P. o. pallidiventris*.—

## VENEZUELA:

(Rincón San Antonio, San Antonio, Hills of  
La Tigra, Cuchivano, Quebrada Seca,  
El Pilar, Salsipuedes, Santa Ana Valley,  
Campos Alegre Valley, Cristóbal Colón),  
15 ♂ (incl. type from Rincón San An-  
tonio), 13 ♀.

## TRINIDAD:

(Carenage, Caparo, Princesstown, Valencia,  
Heights of Aripo), 10 ♂, 3 ♀, 1 (?).

## TOBAGO:

Castare, 1 ♂.

*P. o. parca*.—

## COLOMBIA:

(Puerto Valdivia, Honda, Chicoral, Anda-  
lucía, Fusugasugá, "Bogotá," Buritaca,  
Cacagualito, Minca, Bonda), 8 ♂, 6 ♀,  
26 (?).

## PANAMÁ:

(Barro Colorado Island, El Real, Río Chi-  
man, Chepigana, Savanna near Panamá,  
Gatún, Lion Hill), 8 ♂, 4 ♀, 1 (?).

*P. o. lutescens*.—

## PANAMÁ:

(Santa Fé, Chitrá, Cerro Larga, El Villano,  
La Colorado, La Marea), 21 ♂ (incl. type  
from Santa Fé), 6 ♀.

*P. o. lutescens × dyscola*.—

## PANAMÁ:

Cerro Flores, 1 ♂;  
Wilcox Camp, 1 ♂.

*P. o. dyscola*.—

## PANAMÁ:

(Boqueron, Boquete, El Banco, Almirante,  
Cocoplum, Cebaco Is., Parida Is.), 17 ♂,  
6 ♀, 1 (?).

*P. o. assimilis*.—

## COSTA RICA:

Bonilla, Guayabo, Agua Caliente, Guapiles,  
Aquinares, Atalanta), 10 ♂.

## NICARAGUA:

(Río Coco, Río Tuma, Ocotá, Mata-  
galpa, Río Grande, Los Sabalos), 8 ♂,  
5 ♀, 1 (?).

## GUATEMALA:

(Finca Carolina, Finca Cipres, Finca  
Sepacuite, Finca El Espinosa, Secan-  
quim, Chipoc, Vera Paz, Barrillos),  
24 ♂, 16 ♀, 13 (?).

## MEXICO

Jalapa, 1 ♂, 1 ♀;  
Quintana Roo, Palmal, 1 ♂;  
(no locality), 1 (?).

*Pipromorpha macconnelli peruviana*  
Carriker

*Pipramorpha* (sic) *macconnelli peruviana* CAR-  
RIKER, 1930 (Dec. 15), Proc. Acad. Nat. Sci.  
Phila., LXXXII, p. 372—Perené, Chancha-  
mayo, Perú; ♀ "adult" [= juv.]; Acad. Nat.  
Sci. Phila.

*P. o. oleaginea*, CARRIKER, 1934 (June 25), op

*cit.*, LXXXVI, p. 329, in text; "slightly immature."

The type of this interesting form is in juvenal plumage and, though it has a slight resemblance to the young of various forms of *oleaginea* it is an obvious member of the *macconnelli* group through its complete lack of the broad, buffy latero-terminal spots on the tertials that are present in both adults and young of the *oleaginea* group.

I have no comparable young of *P. m. amazona* nor of *P. m. roraimae*, but the immature plumage of typical *macconnelli* is much greener on the upper surface, duller and more vinaceous on the belly, and distinctly more clouded on the throat and chest than the type of *peruana* which has the back Medal Bronze × Buffy Citrine and the under parts nearly uniform deep Ochraceous-Buff (tinged with Ochraceous-Orange).

Fortunately two adults are at hand, representing both sexes, from which the full characters of the form may be defined. They are much greener on the upper surface than the young bird but the green has a more yellowish tinge than even in *P. m. roraimae*, being Citrine in the male, Citrine × Warbler Green in the female. The under parts are nearly uniform (as in the young), a little warmer than Yellow Ochre but with the throat and breast only slightly clouded with a faint tinge of Buffy Citrine. The belly thus is paler than in *roraimae* or *amazona*, lighter and clearer than in *macconnelli*, and the whole under parts are more uniform than in any of the others. The male has the two outer primaries modified terminally in a different manner from any other form. These feathers are very slender for 7 mm. (10th primary) and 5 mm. (9th) basad from the tips, then rather abruptly widened. The next two or three primaries have their tips broadly acute with a suggestion of a sinuation in the margin of the narrowing portion. The female has the tip of the 10th primary rather sharply pointed but there is no abrupt change in the contour.

Compared with this feature, *roraimae* has the 10th primary quite slender terminally but with a quite regular acumination.

At its minimum development it is much like it is in the female specimen of *peruana*. Both *macconnelli* and *amazona* may have the tips of the outer primaries somewhat narrowed but apparently never beyond the degree shown by the *peruana* female and often much less.

This modification of the remiges is shown by both sexes though perhaps the males have the most extreme development and it is possible that it reaches its greatest extremes with age. The immature specimens at hand show the minimum modification but various degrees are shown by adults whose possible differences of age are indeterminable.

Two birds from Faro, just north of the lower Amazon, extend the range of *amazona* across the river but there is still a considerable hiatus between the portions of the range in northeastern Bolivia and the right bank of the lower Rio Madeira (Borba) from which no specimens have been reported. The range of *peruana* is separated from that of *amazona*, so far as records indicate, but future collections in the intervening area may succeed in closing the gap.

#### SPECIMENS EXAMINED

##### *P. m. macconnelli*.—

###### BRITISH GUIANA:

- Kamakusa, 1 ♂, 1 ♀;
- Potaro Landing, 2 ♂;
- Tumatumari, 2 ♂, 1 ♀;
- Rockstone, 1 ♂, 2 ♀, 1 (?);
- Minnehaha Creek, 1 ♀;
- Essequibo River, 1 (?).

###### FRENCH GUIANA:

- Ipousin, 1 ♀.

##### *P. m. roraimae*.—

###### VENEZUELA:

- Roraima, 2 ♀;
- Arabupu, 1 ♂;
- Mt. Duida, Aguita, 1 ♂, 1 ♀;
- Caño Seco, 1 ♀;
- El Puente, 2 ♀;
- Valle de los Monos, 1 ♂, 1 ♀;
- Cumbre No. 1, Camp. Central, 1 ♀;
- Cumbre No. 2, Cabeceras del Valle, 1 ♂.

##### *P. m. amazona*.—

###### BRAZIL:

- Pará, Prata, 2 ♀;
- Rio Tocantins, Mocajuba, 4 ♂, 5 ♀;
- Cametá, 1 ♂;
- Rio Xingú, Porto de Moz, 1 ♂, 1 ♀;
- Villarinho do Monte, 2 ♂;
- Rio Tapajoz, Limoāl, 1 ♀;

Igarapé Brabo, 3 ♂;  
 Caxiricatuba, 1 ♂, 1 ♀;  
 Rio Amazonas, Villa Bella Imperatríz, 1 ♂,  
 1 ♀;  
 Rio Jamundá, Faro, 2 ♂.

*P. m. peruana.*

PERÚ:

Perené, 1 ♀ (type)<sup>1</sup>;  
 Chanchamayo, 1 ♂;  
 La Merced, 1 ♀.

**Pyrocephalus rubinus rubinus**  
 (Boddaert)

*Muscicapa rubinus* BODDAERT, 1783, Tabl. Pl. Enl., p. 42—based on Daubenton, Pl. Enl. 675, fig. 2, and Buffon's "Le Rubin, de la rivière des Amazones"; I suggest Teffé, Brazil, as restricted type locality.

*Muscicapa coronata* GMELIN (nec Müller, 1776), 1789, Syst. Nat., I (2), p. 932—same basis as *M. rubinus* Boddaert.

*Muscipeta striplata* WIED, 1831, Beitr. Naturg. Bras., III (2), p. 900—Camamú, south of Bahia, Brazil; ♀; Amer. Mus. Nat. Hist.

*Pyrocephalus parvirostris* GOULD, in Darwin, 1839, "Zool. Voy. Beagle," III, pt. 9, p. 44, Pl. vi—La Plata, Argentina; ♂, ♀ from "Buenos Ayres" in British Mus. said to be the "types" [= cotypes].

A good many years ago, Hudson (1888, Birds Argentina, I, p. 152) commented on the fact that this bird was only a summer resident in the southern part of its range, appearing near Buenos Aires about the end of September. He further said that the adults disappeared as early as the end of January, all departing at once but leaving the young behind them. Within a month, the two sexes of the young became distinguishable and after another month the males began to sing, but at the end of April all the young departed.

Even earlier, the migratory habit of the Argentine birds had been noted by such authors as D'Orbigny (1839, Voy. Amér. Mérid., Ois., p. 337) and Gould (*loc. cit.*) while Allen (1892, Bull. Amer. Mus. Nat. Hist., IV, p. 338) later called attention to the fact that the species appeared to be absent from Matto Grosso during part of the year, from October to April.

In confirmation of these assertions I find that all of our Argentine examples (37 specimens) are dated from September (one skin) to April (one skin), mostly from October to January (two dated in March).

<sup>1</sup> Specimen in Academy of Natural Sciences of Philadelphia.

Paraguayan birds are dated from March to October, with one quite young individual from near Concepción dated February 27. One bird from Uruguay is dated November 11. Brazil: Rio Grande do Sul—September and October; all other states—April to September. Bolivia—June to October. Eastern Perú—May to October. Southeastern Colombia—July.

The October birds from Rio Grande do Sul, Brazil, are labeled as having the gonads slightly enlarged but it is not certain that they were not still birds of passage. The Uruguayan specimen and the young bird from Paraguay, dated February 27, suggest the probability that the breeding range of the form extends slightly north of the Argentine borders. Barrows (1883, Bull. Nutt. Orn. Club, VIII, p. 201) notes the species as breeding at Concepción del Uruguay in late November and early December, arriving in middle September and leaving in early April. The northern limits of the breeding range have yet to be established in any detail but it seems to be assured that the bird is only a winter visitant to the Tropical Zone of Brazil, Bolivia, eastern Perú, eastern Ecuador, and southeastern Colombia. The original specimen figured by Daubenton and said to be from the Amazon must, therefore, have been a wintering bird.

This matter is of some importance in connection with the recorded occurrence of a distinct subspecies, *P. r. major*, in southeastern Perú. Although this other form is very imperfectly known, as will be discussed separately, it is probably resident and the occurrence of *ruberinus* as a migrant or winter visitant in the same region does not affect the validity of the two subspecies.

It is worthy of note that *P. r. ruberinus*, a migrating form, tends to have the wing a little more pointed than the non-migratory forms of South America. The tendency is not pronounced enough to be of taxonomic value and is overcome by the individual variations of this form and its relatives. Most of the full-plumaged males of *ruberinus* have the tenth (outermost) primary nearer the sixth than the fifth in length, the ninth primary sometimes

longer than the eighth, and the seventh distinctly shorter than the eighth. The more sedentary forms have the tenth a little longer than the fifth or sometimes shorter than the fifth, and the ninth, eighth, and seventh nearly equal to each other, each of them on occasion being the longest.

Peruvian records that presumably belong to typical *ruberinus* are from Pebas, Xeberos, Iquitos, "Upper Ucayali" [= near Cashi-boyá], Lower Ucayali, Huiro, Huacamayo, and Yarina Cocha. Bartlett reported it also from Santa Cruz, as quoted by Sclater and Salvin (1873, P. Z. S. London, p. 281), and the record is not improbable although no actual specimen has been listed from that locality. Bartlett's account of the habits of the species, "always on the banks of the river, where it breeds in the holes of dead trees," is so at variance with the known habits of any form of this species that it must be concluded he either made an error in his identification or got his notes regarding some other bird attached to the account of *Pyrocephalus*. In any case, I am unable to accept his statement, on this evidence, that the species breeds on the Ucayali and Huallaga rivers.

There is a record of "rubineus" also from Cosñipata, southeastern Perú, which Hellmayr has assigned to *major*, apparently without examination of the specimen and solely on the basis of the occurrence of *major* in the general region. Since the present form also occurs in that region as a migrant, the Cosñipata record (Sclater and Salvin, 1873, P. Z. S. London, p. 186) presumably made in May, June, or July, must be left in abeyance since the present whereabouts of the specimen are unknown to me.

There is also a record from La Merced that needs further investigation since it is the only one from that general region. The bird in question was collected in August, and may, therefore, have been a migrant *P. r. ruberinus* although there is a slight possibility that *major* (q.v.) occurs in this vicinity.

#### ***Pyrocephalus rubinus obscurus* Gould**

*Pyrocephalus obscurus* GOULD, in Darwin, 1839, (July), "Zool. Voy. Beagle," III, pt. 9, p.

45—Lima; Perú; melanistic variety; British Mus.

*Myiarchus atropurpureus* TSCHUDI, 1844 (May), Arch. Naturg., X (1), p. 273—Perú (= hot coastal region); melanistic variety; Neuchâtel Mus.

*Pyrocephalus rubineus heterurus* BERLEPSCH AND STOLZMANN, 1892, P. Z. S. London, p. 381—Lima and Ica; cotypes in Warsaw Mus. and Amer. Mus. Nat. Hist.

The arrangement of the Peruvian, Ecuadorian, and Colombian specimens of the present species, excluding the migrants of the typical form, is far from satisfactory. Owing to certain seasonal differences in intensity of coloration and of "ageal" differences, some rather definite geographical variations are easily overlooked. As a preliminary measure, however, it becomes necessary to establish the application of certain names that have been assigned to the birds of western Perú.

As will be discussed below, I consider the dark-plumaged "obscurus" of Gould to be a melanic "phase" of the resident form of Lima and vicinity and use the name accordingly as the subspecific appellation, since it is the oldest available term for this form. Tschudi's "atropurpureus" is another name for the same dark "phase" and, since its type locality was given in rather general terms, I hereby suggest a restriction of it to Lima, where Tschudi's bird probably was collected. Berlepsch and Stolzmann (*loc. cit.*) stated that they considered Lima birds as typical of their "heterurus" and I accept Lima as type locality although I have at hand two specimens from their collection, one from Lima and one from Ica, both labeled "typus." These two birds are thus two of the cotypes (or, possibly, paratypes, should it be found that the authors selected any one specimen as a particular "type," which I am inclined to doubt).

I am not thoroughly convinced that the name, *major*, should not be placed in the synonymy of *obscurus*, but it has been used, with some justice, for certain birds from southeastern Perú that may belong to a separable form and since I am unable to offer any proofs to the contrary I have adopted the same arrangement and will discuss the case in greater detail under

the heading of *major*. The other available names, excepting those applicable to the typical subspecies, are all properly restricted to the Lima form.

Non-melanic males from Ica, Illo, Co-cachacra, Vitor, Pisco, and Moquegua average distinctly larger, paler and less sooty on the back, and pinker or rosier red below than those from the Lima region. There is less distinction in the females from these two regions but there is some difference in size and the females from the Lima region usually have a tinge of brownish buff on throat and breast that is lacking in the more southern birds. Farther northward along the coast, in the Libertad and Piura regions, the birds are still smaller and although the males are otherwise not certainly different from the Lima birds (except that no melanic phase is known from this area) the females have the throat whiter and the breast distinctly more narrowly streaked. This character is carried up the coast of Ecuador and into western Colombia.

On the other hand, the species crosses the Western Andes of Perú by way of the Huancabamba Pass and once inside the Marañón Valley, at least east of the Río Huancabamba, there is another noticeable alteration in the character of the population, with the males more fiery red beneath, less rosy, and the females more broadly and intensely red on the abdomen and, less intensely, even over the breast while the throat also has a pinkish tinge.

These various distinctions appear to justify the recognition of several additional forms the descriptions of which will follow.

Even with the limitations here put on the form that bears the name *obscurus*, there is much individual variation in certain respects. For example, there is no constancy in the amount of whitish markings present on the tail. Some examples have the outer web of the outermost rectrix whitish or pinkish but others have it little if any paler than the inner web. The tips of the rectrices also may be conspicuously whitish or pinkish or very narrowly so, and in worn examples these narrow tips may be completely absent.

The rump and upper tail-coverts sometimes show narrow, pale tips. None of these characters appears to have any geographical significance.

Immature birds of both sexes in juvenal plumage are dull brownish above with narrow buffy margins on all the feathers, including the upper wing-coverts. The throat and the middle of the belly are white; the breast and flanks are marked by broad, elongate spots of brown and the under tail-coverts have brown shaft-streaks. The outer margins and tips of the inner remiges are buffy or ochraceous and the outer web of the outermost rectrix is whitish.

The post-juvenile molt may begin rather promptly, at least as early as November, or may not start until April or May. The first winter plumage thus acquired is worn until the season of regular annual molt, from the following November or December to the next April or May.

The first winter plumages of the two sexes are relatively distinct from each other and from the fully adult dresses of the respective sexes. In this dress both sexes lose the juvenal buffy margins of the head and back but may retain some traces of such margins on the upper wing-coverts. The females retain the markings of the breast, sides, and flanks but in the form of streaks rather than spots and at the same time acquire a varying intensity of pink or yellow coloration on the flanks. Sometimes this pink coloration is as deep as in fully adult females but usually it is paler; I am not sure that any fully adult female ever has the flanks yellow. One bird from Paracas Bay, Perú, molting from juvenal to first winter plumage, has advanced far in the molt but shows no more trace of yellowish color on the flanks than very young birds.

Males in first winter plumage have much stronger reddish or orange coloration on the lower under parts than the females of the same age but have the breast similarly broadly striped with brownish. Sometimes there are reddish tips on some of the feathers of the throat and breast but these are not of regular occurrence or position. In addition, the top of the head is extensively red though the brownish

tips of the feathers may conceal this coloration until the plumage is disturbed or may be short enough to leave the red color broadly exposed. Some traces of pale tips on the wing-coverts are still present and certain specimens appear to have retained some of the remiges of the juvenal plumage, which show considerable contrast in color to the fresher feathers of the new plumage.

The first winter plumage probably is worn over the first breeding season and lost in the annual postnuptial molt that occurs from November and December to February or March. One male in this plumage, taken on November 10 at Huaral, Perú, is marked as having the gonads enlarged, indicating possible breeding in this plumage. With the first annual molt, the birds acquire their adult plumage though this may not be exactly the same as that of the still older birds. In the male sex, there may be considerable remainders of the dark tips on the top of the head, some white feathers on the throat and middle of the belly, and even fine, dark streaks on the breast. Specimens with an orange suffusion in restricted parts of the red plumage appear likely to be birds that have only recently reached adulthood.

A very interesting fact concerning the coastal Peruvian forms of this species is the common occurrence of melanism in a restricted portion of the range, from Cocachacra to Huaral. There has been some division of opinion as to the specific distinction of the dark birds from the light ones but I find it difficult to believe that two distinct species are involved.

The melanism is evident in all stages of plumage, juvenal, first winter, and adult. Adult females and males in first annual plumage are lighter, on average, than the adult males. The adult males often have single feathers or portions of feathers, breast, throat, sides, and head, bright red like the plumage of normal adults of that sex. There is also a pronounced purplish red suffusion throughout the plumage of all the birds beyond the juvenal stage, least obscured in the lighter colored individuals like the females and subadult males.

I have been unable to find any definite evidence of the interbreeding of the two supposed phases but I believe it must occur. The dark birds are not found anywhere outside the range of the red ones and although Jelski, quoted by Taczanowski (1884, Orn. Pér., II, p. 312), said that the two occupied different kinds of terrain, I have collected both from the same tree to which they flew together. As contributory evidence, it may be noted that the dark birds from Cocachacra are larger than those from Lima, paralleling the difference of size exhibited by the red series. The unfortunate circumstance is that the oldest name for the coastal birds of Perú was applied to the melanic ones, necessitating the use of the name, *obscurus*, for the entire subspecies, most examples of which are far from obscure in coloration.

Records from Callao belong here without question.

***Pyrocephalus rubinus cocachacrae*, new subspecies**

TYPE from Cocachacra, Province of Arequipa, Perú; sea level. No. 170,537, American Museum of Natural History. Adult male collected June 12, 1920, by Harry Watkins.

DIAGNOSIS.—Similar to *P. r. obscurus* of the vicinity of Lima, Perú, but somewhat larger. Males in red "phase" with back a little lighter, browner and less sooty; red of under parts rosier, less scarlet-hued; outer web of outer rectrix apparently always noticeably whitish. Females in this phase with anterior under parts somewhat clearer whitish, less buffy-tinged.

RANGE.—Coast of southern Perú and northern Chile, from Pisco and Ica to Tacna and Arica.

DESCRIPTION OF TYPE.—Top of head Scarlet Red with fine, brownish tips on a few scattered feathers; back Clove Brown with a few indistinct pinkish tips on the feathers of the lower rump; upper tail-coverts more sooty. Lores whitish, with a narrow dusky superior border and with a blackish antecular spot; a whitish subocular lunule rather conspicuous; auriculars like the back and the same color extending forward narrowly over the orbit. Whole under parts of body between Spectrum Red and Rose Doree, lightening on the lower under tail-coverts to Geranium Pink; most of the ventral plumage with slight whitish tips, somewhat worn away. Wings about like the back but with indistinctly pale tips on the secondaries and some of the upper wing-coverts; bend of wing with a narrow pink stripe; under wing-coverts about like the back. Tail a little darker brown than the wings, with narrow whitish tips on all the rectrices and with the outer web of the outermost

feathers whitish to the shaft except for a short subterminal space. Bill and feet (in dried skin) dark brown. Wing, 82 mm.; tail, 63; exposed culmen, 13.5; culmen from base, 20; tarsus, 17.

**REMARKS.**—Female not very different from the normal plumage of *obscurus* in the same sex but with a distinct average of more whitish, less buffy, on throat and breast, paler upper parts, and always noticeably pale outer web of the outer rectrix. In size, there is less obvious difference than between the two series of males but the females of *cocachacrae* average slightly larger than those of *obscurus* (wing, 76–80.5 mm. as against 74–78; tail, 56–63 as against 54–61).

The wing and tail measurements of the males of *cocachacrae* as compared with *obscurus* are as follows: wing, 77.5–84 mm., av., 81 (as against 72–81, av., 76.7); tail, 58–65, av., 61.3 (as against 53–61.5, av., 57.3). However, only four (two melanic individuals) out of eighteen adult males measured have the wing below 80 mm. and only four (including one melanic bird) out of twenty-one adult males of *obscurus* have the wing as much as 80 mm. in length.

One male from Cocachacra is very like *obscurus* in coloration (red phase) but is as large as the type of *cocachacrae*. Some young males of *obscurus* in first winter plumage have the back as light as the older males of *cocachacrae* but usually are readily separable by the various characters that distinguish adults of the two forms.

Records that presumably belong to *cocachacrae* are from Tacna, Islay, and Catarindos Valley.

#### *Pyrocephalus rubinus piurae*, new subspecies

**TYPE** from Palambla, Dept. Piura, Perú, altitude 3900–6500 feet. No. 175,424, American Museum of Natural History. Adult female collected September 30, 1922, by Harry Watkins; original No. 6216.

**DIAGNOSIS.**—Similar to *P. r. obscurus* of the Lima region of Perú but with bill shorter and more slender on average, and not otherwise distinguishable in the adult male plumage although there is never, so far as known, a melanic "phase." Females average paler in dorsal coloration than those of *obscurus* and have the throat more clearly whitish, less washed with soiled buff; the pectoral streaks narrower and less

prominent, and the bill usually smaller as in the male sex.

**RANGE.**—Northwestern Perú from Trujillo northward up the coastal region of western Ecuador and Colombia; crossing the Western Andes of Perú to the western side of the Río Huancabamba; ascending the Western Andes of northern Ecuador to the Quito region; and spreading over the Cauca and Magdalena valleys of Colombia.

**DESCRIPTION OF TYPE.**—Upper parts largely Benzo Brown  $\times$  Deep Brownish Drab with centers of the feathers darker, not sharply defined; forehead paler and strongly tinged with pink; upper tail-coverts sooty. Lorea and a broad but ill-defined superciliary stripe whitish; auriculars light pinkish brown; subocular space whitish; chin and throat whitish, faintly tinged with the color of the breast; breast light Tilleul Buff with narrow brownish shaft-streaks; sides of breast Shrimp Pink with broader brown shaft stripes; upper part of flanks like the sides but with streaks narrower and color deeper, deepening on the lower flanks and under tail-coverts to Geranium Pink  $\times$  Strawberry Pink; belly medially broadly whitish, lightly tinged with pale pink. Wings dark brown; outer margins of secondaries and tertials and the upper coverts inconspicuously paler, like the back; secondaries and tertials and the greater coverts with narrow whitish tips, suggested also on the tips of the other upper wing-coverts; carpal margin rather broadly pink; under wing-coverts near Light Cinnamon-Drab. Tail dark brown with narrow and inconspicuous pale tips on the rectrices but with outer web of outermost feather broadly whitish except near the tip. Bill and feet (in dried skin) blackish. Wing, 73 mm.; tail, 57.5; exposed culmen, 12; culmen from base, 18; tarsus, 17.

**REMARKS.**—The males are rather variable in color as are those of *obscurus* (although they are not known to have any melanic "phase"). The back usually is relatively dark but the average hue is perhaps a little lighter than in *obscurus*. The red of the under parts is more variable than in the other forms and is sometimes as rosy as in *cocachacrae*, sometimes as scarlet-red as the deepest *obscurus*. The outer web of the outermost rectrix may or may not be largely whitish, being variable as in *obscurus*. The bill, however, is smaller, on average, than that of either *obscurus* or *cocachacrae* as the following figures show. Thirteen males of *cocachacrae* have the culmen from base measuring 18.1–20.5 mm., average, 19; twenty-seven males of *obscurus*, 17–19.8, average, 18.2; twenty-six males of *piurae* (from Perú), 16.1–18, average, 17.5.

The character of narrow streaking on the chest is shown also by both sexes in first winter plumage. There is one adult female from Trujillo that agrees with the females of *obscurus* in the relatively heavy pectoral marking but the bill agrees better with that of *piuræ* as would be expected.

A male from Virú has the upper tail-coverts unusually broadly tipped with deep pink, about 4 mm. wide. Occasional specimens of one subspecies or another show slight pink or whitish tips of these feathers but the Virú bird has the maximum development of this variation.

I have no hesitation in referring to *piuræ* the birds from the lower elevations of western Ecuador and Colombia, but I am not sure that there may not be some distinctions necessary in other portions of these two countries. Twenty-four males from the coastal region of Ecuador have the wing, 70.75–77.5 mm. in length; the tail, 51–59. Fourteen males from the highlands near Quito (Ibarra, Chillo Valley, Tumbaco, and "Quito") have the wing, 74.5–82.5; tail, 56–63. I can find nothing except this average size, however, on which to claim any differentiation. Colombian females appear to have a little more pronounced red coloration on the belly than those from Ecuador and western Perú but the difference is not positive enough to warrant separation on this character. With some hesitation, therefore, I assign all resident Ecuadorian and Colombian birds (except for Santa Martan records = *saturatus*) to *piuræ*.

Peruvian records that should belong here are from Payta, Pacasmayo, Minocucho, Paucal, Chimbote, Palmal, Lechugal, and Guadelupe, the last three apparently only sight records.

#### *Pyrocephalus rubinus ardens*, new subspecies

TYPE from Perico, Río Chinchipe, northern Perú, No. 182,116, American Museum of Natural History. Adult female collected July 16, 1923, by Harry Watkins; original No. 7468.

DIAGNOSIS.—Similar to the normal bright red phase of *P. r. obscurus* of the western coast of Perú in the region near Lima, but females with whole of lower under parts clear red, not broadly whitish on the middle of the belly. Males somewhat more fiery red beneath and on the crest

than those of *obscurus*, with less of a rosy tinge; back more consistently sooty. Both sexes with bill averaging shorter; wing, tail, and tarsus less noticeably so.

RANGE.—More arid portions of middle Marañón Valley, intergrading with *obscurus* between Huancabamba and Palambra.

DESCRIPTION OF TYPE.—Forehead and anterior portion of crown near Sorghum Brown; more strongly tinged with pink near the nostrils; back of head near Benzo Brown, obscurely streaked with darker brown, one feather with inner web largely clear red; back light Fuscosus, anteriorly blending with the color of the head; upper tail-coverts darker. Lores dull whitish, with a dusky spot near the eye; superciliary region a little lighter than the crown; auriculars Natal Brown, with a pinkish tinge anteriorly; chin and throat light Salmon-Buff; breast similar but broadly streaked with Verona Brown; sides similarly streaked but ground color tinged with red; belly Scarlet × Peach Red; flanks similar but with traces of dark streaks anteriorly; under tail-coverts a little paler. Wings sooty brown with indistinctly paler margins on the secondaries and suggestions of very fine whitish tips; under wing-coverts brown; bend of wing pink. Tail sooty brown, with fine whitish tips and with outer web of outer rectrices paler than the inner web. Wing, 70 mm.; tail, 54; exposed culmen, 12; culmen from base, 17; tarsus, 16.

REMARKS.—Male with whole under parts and crest near Scarlet-Red; back between Dusky Drab and Blackish Brown (3); lores and auriculars like the back; wings as in the female but more blackish; tail blackish, usually with a strong white or pink terminal mark and with the outer web of the outer rectrices often decidedly whitish or pale pinkish, sometimes not. Wing, 72–79 mm.; tail, 53.5–62. The juvenal plumage is not distinguishable from that of *obscurus*.

I have hesitated to name this form in view of the great variability of *obscurus* and *piuræ*, extreme examples of which come fairly close to *ardens*. Some of the males can not be identified with certainty for this reason, for although the males of *ardens* are noticeably uniform, except in the vicinity of the Huancabamba Pass where they develop the more rosy hue of *obscurus* and *piuræ*, occasional skins from various parts of the range of these other forms possess the scarlet coloration of *ardens*. Of well over a hundred males of *obscurus* and *piuræ* there are not more than eight or ten that match typical *ardens* in this respect and most of the re-

mainder are very distinct. Some apparently adult males of *obscurus* have a certain amount of yellowish suffusion on the throat and breast or even the belly that gives an orange tint to the under parts but this color is again different from that of *ardens*.

The differences in the lengths of the bill and tarsi are not pronounced enough nor constant enough to serve without question, but they are quite useful as corroborative characters. The relative sizes of the bills are more easily determined by observation than by millimetric measurement, owing to the miniature scale required. If bills are placed with their tips and lateral margins together, the relative positions of the adjacent nostrils of each will show that *obscurus* usually has a little longer bill than *ardens*.

In the series of over sixty females of *obscurus* and *piuræ*, only four show any decided approach toward *ardens* and even these are exceeded in intensity of coloration by all but one of the females of *ardens* except three intermediate examples from near the Huancabamba Pass.

A young female from Sondorillo has the lateral under parts light Bittersweet Pink. One from Huancabamba, also not fully adult, has this region a little rosier than Peach Red but a more adult female from Huancabamba has the whole belly and the flanks intense light Scarlet-Red. Two males from Huancabamba and one male from Sondorillo are definitely rosier red than typical *ardens*, agreeing closely with males from Palambla and the coast of Perú. It is apparent, therefore, that intergradation takes place in the neighborhood of the Huancabamba Pass, and that there is no sharp line dividing the two forms at this point.

More puzzling is a male from Chachapoyas that is very like the males from Huancabamba in its rosy tinge. It is marked as having greatly enlarged gonads and was taken on December 18, precluding much likelihood of its being a migrant of *piuræ* if, indeed, there were any other evidence of the migration of the subspecies in Perú. A female from Chachapoyas, however, is a good *ardens* and serves to

establish the identity of the form found in this locality.

There is another apparently important character for the adult males of *ardens* that is useful though not perfectly diagnostic. At the completion of the post-nuptial molt, *obscurus* and *piuræ* more often than not show fine, whitish terminal margins on the feathers of most of the under parts although these wear off before the next breeding season and leave the under parts clear rosy red. Occasional fresh examples may show but few of these tips but such specimens are rare. In male *ardens* there are no such pale tips at any season beyond very minute traces, all but imperceptible, in one or two specimens. In worn examples, of course, this difference is lost.

The two adult males from Huancabamba, mentioned in a preceding paragraph have some of the lateral feathers of the crest very elongate, 28 mm. in one specimen and 27 mm. in the other. No taxonomic significance can be attributed to this variation, apparently, since there is no indication of it in other males from nearby localities. The usual length of the feathers in question is from about 12 to 18 mm.

The pronouncedly red belly of the females of this form strongly suggests the color of *saturatus* of the northernmost regions of South America. Some examples of this sex are very similar, but female *saturatus* reaches a greater extreme in depth of color on the abdomen and usually has heavier stripes on the breast.

Male *saturatus* has much the same hue of red on the under parts as *ardens* but it is a little sootier on the back, on average, and has a shorter wing (69–75 mm.) and tail (50–56.5) without the very obviously pale outer web of the outermost rectrix as shown by some *ardens* though frequently with equally pink tips on the rectrices.

It is thus obvious that *ardens* is decidedly intermediate between *obscurus* or *piuræ* and *saturatus* in spite of the very wide geographic hiatus between the known ranges of *saturatus* and *ardens*. The intervening terrain, largely tropical forest, is not such as might be expected to support

a breeding population of *Pyrocephalus* and the relatively few specimens known from the area appear to be but wintering or migrant examples of *ruberinus*. Direct genetic relationship between the two subspecies does not appear very probable and the similarity may be due to parallelism.

Records that should be assignable to *ardens* are from Bellavista, Callacate, Viña, Cajamarca, Succha, Hacienda Limón, and Guajango.

### **Pyrocephalus rubinus major Pelzeln**

*P(yrocephalus) major* PELZELN, 1868, Orn. Bras., II, p. 115, footnote—based on “*Pyr. coronatus* or *Muscicapa coronata* of authors” of Gould, in Darwin, “Zool. Voy. Beagle,” III, pt. 9, p. 45, in text; locality unknown; Chaquimayo, Perú, suggested by Laubmann, 1930.

There is a serious problem concerning the valid use of the name *major* for any subspecies of *P. rubinus*. Gould described his supposedly new *P. parvirostris* (from La Plata) as being smaller than “*coronatus*,” basing his supposition on measurements of “*coronatus*” that were given him by G. R. Gray. These showed that form to have the wing (inches and lines reduced to millimeters), 80.4 mm.; tail, 65.6; bill, 19–21 mm.; tarsus, 15–17 mm. Where Gray obtained these measurements it is impossible to say. In the length of tail and length of bill, the measurements exceed those of true “*coronatus*” (= *ruberinus*) and Pelzeln, *loc. cit.*, proposed the name *major* for whatever birds Gray might have had that showed the larger measurements. He noted that the Vienna Museum possessed a specimen from an unknown locality that agreed with these measurements and this bird Hellmayr later (1927, Field Mus. Nat. Hist. Publ., Zool. Ser., XIII, pt. 5, p. 89) accepted as the type of *major*, although I do not think this acceptance is justified. At the same time, Hellmayr recorded a specimen from Chaquimayo, southeastern Perú (Munich Mus.), and one from Huiro, Urubamba region (Field Mus. Nat. Hist.), which agreed with the Vienna Museum specimen in large size, unusually dark back, and lack of white on the outer web of the outermost rectrix. All these birds he referred, provisionally, to *major*. Still later, Laubmann (1930, Deut-

sche Gran Chaco Exped., Vögel, p. 214) proposed for *major* the restricted type locality of Chaquimayo, Perú.

It is futile to try to ascertain where Gray obtained his measurements. The Catalogue of Birds in the British Museum lists no specimens from southern Perú (except of the melanic phase of *obscurus*) that were on hand at the time of the publication of the Zoology of the Voyage of the Beagle. D'Orbigny (1839, Voy. Amér. Mérid., Ois., p. 47) included birds from Lima, Tacna, Bolivia, and Argentina in what he called “*coronatus*” and gave the wing-measurement as 80 mm. (near the maximum for *ruberinus*!) but did not mention the bill and tail. This is the nearest approach I can find to Gray's figures. As a matter of fact, the length of tail as given by Gray is approached at all closely only by the birds from southwestern Perú, less closely (but next in average) by specimens from the Lima region, although one bird from northern Ecuador is as large as many southwest-Peruvian specimens.

However, Hellmayr (*loc. cit.*) has noted the three birds, all adult males, which he refers to “*major*,” as being especially dark on the upper surface and lacking all decided whitish tint on the outer web of the outer rectrices. The birds from southwestern Perú disagree entirely with this diagnosis. On the other hand, some of the adult males from the neighborhood of Lima lack the white edges on the tail, and, furthermore, a dark back is one of the characters of the Lima form. As noted earlier, specimens from the highlands of northern Ecuador are larger than those from the lowlands of the same country, although I have proposed no taxonomic separation on those grounds, and it is possible that there is a resident population in the highlands of southern Perú with measurements larger than those of *obscurus* of Lima, but otherwise similar.

There thus remains some question as to the actual distinction of a resident form in this inland area. As discussed on a previous page, typical *ruberinus* is a winter visitant to this region and the only evidence that there is another and resident form is

the Munich Museum bird from Chaquimayo and the Field Museum specimen from Huiro. A record from Cosñipata, placed by Hellmayr under *major*, needs confirmation as noted in the discussion of *ruberinus*. In the meantime, since the most positive evidence concerning such a form rests on the Munich Museum skin whose locality has been proposed by Laubmann as type locality of this form, the name *major* may be accepted with reservations for a possible subspecies living in the highlands of southeastern Perú and with characters as defined by Hellmayr.

#### SPECIMENS EXAMINED

##### *P. r. ruberinus*.—

###### ARGENTINA:

Barracas al Sud, Pacheco, Monte Grande, Flores, San José de Flores, La Plata, Monte (Estado San Martino), La Soledad, Mendoza, Suncho Corral, Rosario de Lerma, Avia Terai, Chascomús, Mar del Plata, Tafí del Valle, Los Talas (Buenos Aires), and "Argentina," 26 ♂, 11 ♀.

###### PARAGUAY:

Puerto Pinasco, Puerto Pazani, Colonia Rissó, Río Ipano, opposite Concepción, Mancuello, Makthlawaiya, 80 kilometers west of Pinasco, and "Paraguay," 11 ♂, 1 ♀, 3 (?).

###### URUGUAY:

Mouth of Río Jaguara, 1 ♂.

###### BRAZIL:

(Rio Grande do Sul) Santa Isabel, Palmares, Candiota, and Lagôa dos Patos, 11 ♂, 2 ♀; (Santa Catharina) Poça Prieto, 1 ♂; (Paraná) Guayra and Porto Mendez, 5 ♂, 1 ♀; (São Paulo) Itapura and Victoria, 2 ♂, 1 ♀; (Bahia) Santa Rita, 5 ♂; Camamú, 1 ♀ (type of *strigilata*); (Piauhy) Corrente, 4 ♂, 1 ♀; (Minas Geraes) Rio Jordão, 1 "♀" [= ♂]; (Goyaz) Rio Thesouras and Rio Araguaya, 4 ♂, 3 ♀; (Matto Grosso) Chapada, Campanário, and Amambary, 26 ♂, 17 ♀, 5 (?) ; (Amazonas) Rio Xingú, Victoria, 1 ♀; Rio Madeira, Humaythá, 5 ♂; Rio Purús, Bom Lugar, 1 ♀; Rio Negro, Manaos, 1 ♂, 2 ♀; Teffé, 3 ♂.

###### BOLIVIA:

Todos Santos, Mission San Antonio, Reyes, Santa Cruz, Falls of Rio Madeira, Province of Sara, and San Augustin, 15 ♂, 2 ♀.

###### PERÚ:

Río Tavará, 1 ♂; La Pampa, 1 ♀; mouth of Río Urubamba, 4 ♂; Puerto Indiana, 4 ♂, 6 ♀; Yurimaguas, 2 ♂<sup>1</sup>, 2 ♀<sup>1</sup>.

##### *P. r. major*.—

###### PERÚ:

Huiro, 1 ♂<sup>1</sup>.

##### *P. r. cocachacrae*.—

###### PERÚ:

Cocachaera, 7 ♂ (incl. type), 3 ♂<sup>2</sup>, 1 ♀; Vitor, 3 ♂, 3 ♀; Moquegua, 3 ♂, 3 ♀; Paracas Bay, 1 ♀; Ilo, 1 ♂, 2 ♀, 1 ♀<sup>2</sup>; Pisco, 4 ♂, 4 ♀; Ica, 1 ♂ (cotype of *heterurus*), 2 ♂<sup>2</sup>, 2 ♀, 1 (?); Tambo Valley, 1 ♀.

###### CHILE:

Chacalluta, 3 ♂<sup>1</sup>, 1 ♀<sup>1</sup>.

##### *P. r. obscurus*.—

###### PERÚ:

Lima, 2 ♂, 3 ♀<sup>2</sup>, 1 ♀ (cotype of *heterurus*), 4 ♀<sup>2</sup>; Huaral, 18 ♂, 3 ♂<sup>2</sup>, 15 ♀; Huacho, 12 ♂, 4 ♀, 1 (?); Chorrillos, 3 ♂, 2 ♀; Sayán, 2 ♂, 1 ♀; Vitarte, 5 ♂, 16 ♂<sup>2</sup>, 1 ♂<sup>1,2</sup>, 8 ♀, 8 ♀<sup>2</sup>, 1 ♀<sup>1,2</sup>; Chosica, 1 ♂<sup>1</sup>, 2 ♀<sup>1</sup>; Santa Eulalia, 4 ♂<sup>1</sup>, 2 ♀<sup>1</sup>.

##### *P. r. ardens*.—

###### PERÚ:

Perico, 2 ♂ (incl. type), 1 ♀; Jaen, 2 ♂, 1 ♀; Pucará, 1 ♂, 1 ♀; Sauces, 2 ♂, 1 ♀; Lomo Santo, 1 ♂; Santa Rosa, 1 (?); San Felipe, 1 ♂, 1 ♀; San Ignacio, 2 ♂, 2 ♀; Huancabamba, 2 ♂, 2 ♀, 1 (?); Malca, 2 ♂, 1 ♀; Chachapoyas, 1 ♂, 1 ♀; Río Cajamarca, 2 ♀.

##### *P. r. piurae*.—

###### PERÚ:

Palambla, 3 ♂, 3 ♀ (incl. type); Sondorillo, 1 ♂, 2 ♀; Virú, 7 ♂, 2 ♀; Tembladera, 1 ♂; Trujillo, 6 ♂, 3 ♀; Milágros, 1 ♀; Chepen, 1 ♂; Chilaco, 2 ♂, 2 ♀; Sulfana, 2 ♂, 3 ♀; Paletillas, 3 ♂; Pilares, 1 ♂;

<sup>1</sup> Specimens in Field Museum of Natural History, Chicago.

<sup>2</sup> Dark "phase."

Somite, 4 ♂, 1 (?) ;  
 Lamor, 5 ♂, 1 ♀ ;  
 Túmbez, 1 ♂, 2 ♀.

## ECUADOR:

Guainche, Río Jubones, Casanga Valley,  
 Santa Rosa, Río Pullango, Río Pindo,  
 Portovelo, Isla Santay, Guayaquil,  
 Chone, Esmeraldas, Bucay, Isla Puna,  
 Duran, Daule, Santa Elena, Isla La  
 Plata, Chongocito, "Quito," Ibarra,  
 Chillo Valley, Tumbaco Valley, Quevedo,  
 and "Ecuador," 51 ♂, 14 ♀.

## COLOMBIA:

Cali, Palmira, Cauca, east of Palmira,  
 Atuncela, San Antonio, Caldas, Honda,  
 Tumaco, Popayan, Andalucia, Chicoral,

Medellin, Antioquia, Río Caquetá, Los  
 Coyotes, "Bogotá," and "Sinaloa, Mex-  
 ico" (errore), 40 ♂, 11 ♀, 2 (?).

*P. r. saturatus*.—

## VENEZUELA:

Altagracia, Ciudad Bolívar, Caicara, Mar-  
 ipa, "Orinoco," Suapure, La Prición,  
 Barquisimeto, El Cuji, Tucacas, San  
 Felix, Duaca, Valencia, Quiribana de  
 Caicara, and Las Guiacas, 33 ♂, 18 ♀.

## BRITISH GUIANA:

Annai, 4 ♂, 1 ♀, 2 (?).

## BRAZIL:

Rio Surumú, Frechal, 3 ♂, 2 ♀ ;  
 Rio Cotinga, Limão, 1 ♂, 1 ♀ .

## CORRIGENDA

In No. XXXII of the present "Studies" (1939, Amer. Mus. Novitates, No. 1044), pp. 16 and 18, *Scytalopus magellanicus*

*obscurus* Zimmer (nec *Sylvia obscura* King, 1828) requires a new name. It is hereby renamed *Scytalopus magellanicus opacus*.

